

1 October 2007

Ohana Military Communities, LLC  
5173 Nimitz Road  
Honolulu, HI 96819

Re: Phase I Environmental Site Assessment Update  
North Ford Island Naval Family Housing Property (Covering Luke Field, Nob Hill  
Kamehameha Loop and PPV North)

To Ohana Military Communities, LLC:

We have conducted a Phase I Environmental Site Assessment Update ("Update") in accordance with the American Society of Testing and Materials' ("ASTM") Standard Practice E 1527-05 for the North Ford Island Naval Family Housing Area (the "Site"). As part of this Update, we have, among other things, conducted visual inspections of the Site and adjoining properties, interviewed a knowledgeable representative of Ohana Military Communities, LLC and appropriate regulatory agency officials, obtained an updated electronic environmental reports database search report, and reviewed an updated environmental lien search commissioned by Ohana Military Communities, LLC. In addition, Ohana Military Communities, LLC, as User, has provided us with the information required by Section 6 of the ASTM Standard Practice E 1527-05 where applicable. Interviews of housing occupants were not conducted in accordance with Section 10.5.2.1. The following summarizes these activities:

- ◆ Visual inspections of the Site were conducted on 14 July 2007. Changes to the Site or the housing units were not observed, except PPV North. At PPV North, construction of family housing units was ongoing. A perimeter dust fence was installed around the construction area. Except for adjoining properties to the south, there were no changes to adjoining properties as observed during the visual inspections. Ground preparation activities were underway at South Ford Island in anticipation of the construction of military family housing at the site.
- ◆ The environmental database search conducted on 23 July 2007 reported no additional mapped sites to those identified in the previous database search report within the ASTM Standard Practice E 1527-05 minimum search distances. Unmapped sites have been identified in the environmental database search reports for this Update and for the September 2006 Phase 1 ESA. Listed sites are unmapped because address information is insufficient to ascertain their distance to the Site in accordance with the prescribed search distances. These sites are listed as follows:
  - HISTSITES – The USS Arizona wreck and the USS Utah wreck are listed in the National Register of Historic Places and do not constitute Recognized Environmental Conditions ("RECs") to the Site.
  - FINDS – Special Project R34-03 Repairs is listed as being under the National Pollutant Discharge Elimination System compliance program. Building 3 at Ford Island is listed in the EPA's Facility Registry System. There are no ongoing environmental investigations/compliance actions at both of these facilities; therefore, these facilities do not constitute RECs to the Site.
  - ERNS – Building 3 at Ford Island is listed in ERNS from the disposal of 50 lbs of asbestos tiles that were removed during renovation in 1993. Based on renovation being complete, this facility does not constitute a REC to the Site.
  - LUST – Cleanup at the Naval Ocean Processing Facility site is complete. Thus, this site does not constitute a REC to the Site. The LUST at Lift Station FI-047 constitutes a REC to the Site for as long as cleanup is not complete.



- NCDB – The Submarine Training Center was inspected for asbestos. There are no other environmental investigations/compliance actions for this facility; therefore, this facility does not constitute a REC for the Site. The USS Missouri was inspected for PCBs and the database indicates that no action is warranted; therefore, this facility does not constitute a REC for the Site.
  - RCRA GEN – The Seal Delivery Vehicle Team One and Navy PWC Ford Island are listed as a small quantity generator and a large quantity generator, respectively. Seal Delivery Vehicle Team One is also listed in RCRA NLR, indicating that it no longer generates hazardous waste and that there are no ongoing environmental investigations/compliance actions at this facility. Therefore, this facility does not constitute a REC to the Site. Navy PWC Ford Island continues to generate hazardous waste and has experienced non-compliance and enforcement action; therefore, Navy PWC Ford Island constitutes a REC to the Site.
  - RELEASES – A 50-gallon diesel spill occurred at Building 44 on Ford Island in 1996. The release was stopped and a boom was deployed to contain the release. Based on the date of occurrence of this release and actions taken during the release, this spill does not constitute a REC to the Site.
  - UST – Two tanks at the Naval Submarine Training Center and one tank at the Lift Station FI-047 are currently in use. Three tanks at the Naval Ocean Processing Facility and one tank at Building 88 are permanently out of use. There are no ongoing environmental investigations/compliance actions at these facilities; therefore, these facilities do not constitute RECs to the Site.
- ◆ (b) (6) of Ohana Military Communities, LLC was interviewed on 14 July 2007 regarding ongoing activities at the Site. According to (b) (6), there are no environmentally-related activities ongoing at the Site. However, during the preparation of building pads at PPV North, aviation gas lines wrapped in asbestos tar paper were excavated and disposed of in accordance with the Asbestos Management Plan.
  - ◆ A new chain of title for the Site, dated 1 August 2007 and commissioned by Ohana Military Communities, LLC, was reviewed. There were no environmental liens found in the chain of title for the Site.
  - ◆ The Hawaii Department of Health Office of Hazard Evaluation and Emergency Response (“HEER”) was contacted on 6 August 2007 for information regarding ongoing investigations/compliance actions related to the Site. (b) (6) of the HEER directed Parsons to contact the Navy’s Installation Restoration Program Manager, (b) (6). (b) (6) was contacted on 9 August 2007. In a follow-up communication received on 29 August 2007 at the direction of (b) (6), (b) (6) indicated that there are no changes to ongoing investigations at IRP sites on Ford Island.

Based upon the information obtained from the above mentioned activities and our review of the previous Phase I and II ESAs, both dated September 2006, we have concluded that the condition of the North Ford Island Naval Family Housing Property has changed since our previous Phase I and II ESAs. With regard to previously identified RECs, ACM, LBP, canec, PCB ballasts, pesticide soils, smoke detectors, and mercury will continue to be RECs. Contaminated sediments at Pearl Harbor remain as a REC to the Site. Additional sites identified by the environmental database search as listed above are either RECs or not RECs for the reasons stated above. It is recommended that cleanup at the LUST site and activities at Navy Ford Island PWC be monitored for potential contaminant migration to the North Ford Island Naval Family Housing Property. We have not identified any new RECs on the North Ford Island Naval Family Housing Property.

All other aspects of our prior Phase I and II ESAs for the Site, both dated September 2006, were reviewed by Parsons, remain valid and in effect, and are hereby restated. Copies of those reports are attached hereto and are hereby incorporated by reference.

In conclusion, we have performed a Phase I Environmental Site Assessment Update in conformance with the scope and limitations of ASTM Practice E 1527 of the North Ford Island Naval Family Housing Property. This assessment has revealed no evidence of additional RECs in connection with the property, except those identified from the results of the environmental database search report.

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy, (b) (4)

, and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors. The information and conclusions presented in this report are valid only for the circumstances of the Site as described as of the dates in this report.

Sincerely,

(b) (6)

**PARSONS**

Attachments:

Environmental Professional Statement and Signature

Final Phase I Environmental Site Assessment – North Ford Island Naval Family Housing, September 2006

Phase II Environmental Site Assessment – North Ford Island Naval Family Housing, September 2006  
Database Search

## ENVIRONMENTAL PROFESSIONAL STATEMENT AND SIGNATURE

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the North Ford Island Naval Family Housing Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

(b) (6)

1 October 2007

(b) (6)

, P.E.

# ***FINAL PHASE 1 ENVIRONMENTAL SITE ASSESSMENT***

## ***NORTH FORD ISLAND FAMILY HOUSING AREA, COVERING LUKE FIELD, NOB HILL, KAMEHAMEHA LOOP AND PPV NORTH***

***Prepared for***



**Honolulu, Hawaii**

**September 2006**

***Prepared by***

**PARSONS**

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1132 BISHOP STREET, SUITE 2102 • HONOLULU • HAWAII 96813  
100 WEST WALNUT STREET • PASADENA • CALIFORNIA 91124





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NORTH FORD ISLAND FAMILY HOUSING AREA  
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## **ACRONYMS AND ABBREVIATIONS**

ACM	Asbestos-containing material
AIRS	Aerometric Information Retrieval System
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
AUL	Activity and Use Limitation
BS	Bachelor of Science
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
COMNAV	Commander Navy
COR	Corrective Action Report
EP	Environmental Professional
ERNS	Emergency Response Notification System
°F	Degrees Fahrenheit
FAA	Federal Aviation Administration
FCC	Federal Communication Commission
FINDS	Facility Index System
FOS	Finding of Suitability
FRS	Facility Registry System
FTTS	FIFRA/TSCA Tracking System
GEN	Generator
HDOH	Hawaii Department of Health
HMIRS	Hazardous Materials Incident Response System
HUD	United States Department of Housing and Urban Development
kg	Kilograms
km	Kilometer
LBP	Lead-based paint
lbs	Pounds
LQG	Large Quantity Generator
LUST	Leaking underground storage tank
m	Meter
MS	Master of Science
µg/ft <sup>2</sup>	Micrograms per Square Foot
NAVFAC PAC	Naval Facilities Engineering Command Pacific Division

**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
NORTH FORD ISLAND FAMILY HOUSING AREA  
PEARL HARBOR AREA OF O'AHU, HAWAII**

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NCDB	National Compliance Data Base System
NESHAP	National Emission Standard for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NLR	No Longer Report
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NWI	National Wetlands Inventory
PCB	Polychlorinated biphenyl
pCi/L	picoCuries per liter
PE	Professional Engineer
ppm	parts per million
RADINFO	Nuclear Regulatory Commission Database of Permitted Nuclear Facilities
REC	Recognized Environmental Condition
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
SQG	Small Quantity Generator
SSTS	Section Seven Tracking System
TCLP	Toxic Characteristic Leaching Procedure
TIGER	Topologically Integrated Geographic Encoding and Referencing System
TIS	Track Info Services, LLC
TRIS	Toxic Release Inventory System
TSCA	Toxic Substances Control Act
TSD	Treatment, Storage, and/or Disposal
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground storage tank
WRCC	Western Regional Climate Center Web Page ( <a href="http://www.wrcc.dri.edu/">http://www.wrcc.dri.edu/</a> )

## **1.0 SUMMARY**

Parsons conducted a Phase I Environmental Site Assessment in conformance with the American Society of Testing and Materials (ASTM) Standard Practice E 1527-05 for the following site:

- North Ford Island Family Housing Area, located on Ford Island at Pearl Harbor, Hawaii

The site is 71.515 acres. Exhibit 1, Site Map, presents the general location of the site. A complete legal description and detailed view of the site is presented on Exhibit 2, Site Survey Map.

The site is located on the northern portion of Ford Island at Pearl Harbor. The site consists of three housing areas (Luke Field, Kamehameha Loop, and Nob Hill) and a vacant site known as PPV North located southwest of Nob Hill to be used for future housing construction. The 40 units at Nob Hill and Luke Field consist of single level, single or duplex homes constructed between 1918 and 1938. The 140 new homes constructed in 2003 at Kamehameha Loop are three- and four-bedroom homes in duplex and four-plex arrangements. The square footage of the units ranges from 820 to 3,700 square feet. The units have 2 to 5 bedrooms with 1 to 3.5 bathrooms. Two units were renovated in 1970, five were renovated in 1998, one was renovated in 2002, and two were renovated in 2003. There are 23 historic homes (Ohana, 2006). At the direction of Navy, only units at Kamehameha Loop were available for inspection, all other units were occupied.

Ohana Military Communities, LLC will be the lessee of the site and will be the owner of 180 housing units, of which 40 will be renovated and 40 will not change. Ohana Military Communities, LLC will build 102 new housing units.

The plantation-style housing units at Nob Hill and Luke Field are of wood construction on cinder block pilings. The units at Kamehameha Loop are of modern construction, including metal framing and asphalt shingle roofing. Carports are provided for the older units while garages are part of the new housing units.

Available information for the site and surroundings was collected and evaluated to identify Recognized Environmental Conditions. According to the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05, the term Recognized Environmental Conditions (RECs) means "the presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property." The term is not intended to include *de*

*minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Based on the definition of a REC in the ASTM Standard Practice E 1527-05, the following RECs have been identified for the site:

- Building materials suspected of containing asbestos include mastic for carpet, tiling, and rubber baseboards, roof tar, sink undercoating, and drywall joint compound. According to asbestos assessments prepared by the Department of the Navy Public Works Center (Navy Public Works Center, 1997), ACM is present in some units in floor tile and mastic. It is recommended that the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.
- Lead assessments confirmed the presence of lead in paint, dust and soil at the Luke Field and Nob Hill housing areas of the site exceeding current action limits (Navy Public Works Center, 1997). It is recommended that the presence of LBP be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- Canec board may comprise the interior walls and ceilings of housing units at Luke Field and Nob Hill. Canec may contain arsenic at levels requiring handling and disposal as a hazardous. It is recommended that interior walls and ceilings that are suspected to be canec board be sampled for total arsenic using toxic characteristic leaching procedure (TCLP) to determine proper handling and disposal requirements.
- Fluorescent lighting that may be in use at the units at Luke Field and Nob Hill may contain PCB-containing ballasts. It is recommended that potential PCB-containing ballasts be properly managed, during demolition and/or renovation.
- Due to the historic use of chlordane as a termiticide in homes, chlordane may exist in the soil near the foundation and under the building slabs. Prior to renovation activities, surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- Smoke detectors in older units have the potential to contain a radioactive source. Prior to renovation, smoke detectors should be inspected for a radioactive source and handled and disposed of accordingly.

- Light switches and lamps in older units have the potential to contain mercury. During demolition, these switches and lamps should be removed and disposed of properly.
- The sediments of Pearl Harbor are in the vicinity of the site. Metals, PAHs, SVOCs, chlorinated pesticides, PCBs, dioxins, chlorinated herbicides, triazine pesticides, carbamate/urea pesticides, and ordnance compounds are considered chemicals of potential concern for the sediments of Pearl Harbor. Given the site's immediate proximity Pearl Harbor, these impacted sediments are a REC.

A Phase I Environmental Site Assessment does not include any sampling and analysis of potentially contaminated materials. The scope of work of this Phase I Environmental Site Assessment did not specifically include sampling and analysis, therefore no independent soil or groundwater or other sampling and analyses were conducted.

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## **2.0 INTRODUCTION**

### **2.1 PURPOSE**

Parsons conducted a Phase I Environmental Site Assessment in conformance with the ASTM Standard Practice E 1527-05 for the purpose of identifying RECs at the following site:

- North Ford Island Family Housing Area, located on Ford Island at Pearl Harbor, Hawaii

The site is 71.515 acres. Exhibit 1, Site Map, presents the general location of the site. A complete legal description and detailed view of the site is presented on Exhibit 2, Site Survey Map.

Exhibit 3 provides the approximate location of the site on a United States Geological Survey (USGS) topographic map.

The term REC, as defined in ASTM Standard Practice E 1527-05, means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with applicable laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

### **2.2 PHASE I TASKS**

Parsons performed the following tasks:

#### **2.2.1 Records review**

Available current and historical documents pertinent to environmental activities conducted in or near the site were reviewed. Topics of interest include chemical usage or inventories, waste management records, Resource Conservation and Recovery Act (RCRA) or Comprehensive Environmental Response Compensation and Liability Act (CERCLA) activities.

### **2.2.2 Site reconnaissance and Interviews**

Site reconnaissance of the site to visually and physically observe and document conditions on the property was performed. Vacant units at Kamehameha Loop were available for inspections. There were no vacant units at Luke Field and Nob Hill that were available for inspection. Interviews were conducted in keeping with the requirements of ASTM Standard Practice E 1527-05, § 7.1 – 7.2.

### **2.2.3 File search and records review**

A search of federal, state, and local regulatory agency electronic databases was performed. This database search identifies locations that are regulated under various environmental laws, notably CERCLA, RCRA, and Toxic Substances Control Act (TSCA). It also identifies locations where a release of hazardous substances has occurred or is suspected.

### **2.2.4 Historical Records review**

Available historical aerial photographs were reviewed to confirm that a historic use information review was conducted to identify all obvious uses from the present back to the first developed use or 1940, whichever is earlier.

### **2.2.5 Evaluate data and prepare report**

Significant findings from the above-stated tasks were summarized, RECs were identified, and recommendations were made for additional site assessment activities, if needed.

## **2.3 SPECIAL TERMS AND CONDITIONS**

- The information and conclusions presented in this report are valid only for the circumstances of the site investigated as described as of the dates in this report.
- Parsons evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons by others or for the lack of information that is intentionally, unintentionally, or negligently withheld from Parsons by others.
- After acceptance of this report, if Parsons obtains information that it believes warrants further exploration and development, Parsons will endeavor to provide that information, but Parsons will not be liable for not doing so.

## **2.4 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT**

To achieve the study objectives stated in this report, Parsons based its conclusions on the best information available during the period of the investigation and within the limits prescribed by the ASTM Standard.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgment was exercised in gathering and evaluating the information obtained, and Parsons commits itself to the usual care, thoroughness, and competence of the engineering profession.

## **2.5 LIMITING CONDITIONS AND METHODOLOGY USED**

The Phase I Environmental Site Assessment investigations were completed in accordance with the ASTM Standard Practice E 1527-05.

## **2.6 USER RELIANCE**

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy,

(b) (4)



and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors.

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### **3.0 SITE DESCRIPTION**

#### **3.1 LOCATION AND LEGAL DESCRIPTION OF PROPERTY**

The North Ford Island Family Housing Area is located at Latitude (North) 21.367, Longitude (West) 157.965. The site is located on the north third of Ford Island at Pearl Harbor. Access to the site is restricted through the Admiral Clarey Bridge. Exhibit 2 provides a legal description of the property and a site survey map.

Ohana Military Communities, LLC will be the lessee of the site and will be the owner of 180 housing units, of which 40 will be renovated and 40 will not change. The Ohana Military Communities, LLC will build 102 new housing units.

#### **3.2 SITE AND VICINITY CHARACTERISTICS**

Table 3-1 provides a description of the properties directly adjacent to the site.

**Table 3-1  
Adjacent Properties**

<b>Direction</b>	<b>Description of Adjacent Properties</b>
North	East Loch of Pearl Harbor.
East	USS Arizona Memorial and East Loch of Pearl Harbor.
South	USS Missouri, and the rest of Ford Island (historical runway, historical tower, hangars, abandoned pipelines and other industrial-type buildings).
West	Middle Loch of Pearl Harbor.

#### **3.3 DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE**

The site consists of three areas: Luke Field and Kamehameha Loop housing area, Nob Hill housing area, and a vacant lot located directly southwest of Nob Hill slated for future construction of additional family housing units. These three areas occupy the north third of the island. Access to the island is restricted through the Admiral Clarey Bridge. Ford Island is part of the Pearl Harbor Naval Complex. Typical landscaping bordering the housing units include grass and trees.

The 40 units at Nob Hill and Luke Field consist of single level, single or duplex homes constructed between 1918 and 1938. The 140 new homes constructed in 2003 at Kamehameha Loop are three- and four-bedroom homes in duplex and four-plex

arrangements. The square footage of the units ranges from 820 to 3,700 square feet. The units have 2 to 5 bedrooms with 1 to 3.5 bathrooms. Two units were renovated in 1970, five were renovated in 1998, one was renovated in 2002, and two were renovated in 2003. There are 23 historic homes (Ohana, 2006).

Housing units at Luke Field and Nob Hill are constructed of wood and supported by cinder block posts. Roofs are of wood construction, covered with asphalt shingles. Detached carports, also of wood construction and asphalt shingles for roofing, are included.

New homes at Kamehameha Loop are of modern construction, including metal framing. Garages with sectional doors are provided.

Interior roads are paved with black top. Utilities in the new housing area are underground. At Luke Field and Nob Hill, power is provided to the units through overhead power connections.

### **3.4 INFORMATION REPORTED BY USER REGARDING ENVIRONMENTAL LIENS OR SPECIALIZED KNOWLEDGE OR EXPERIENCE**

#### **3.4.1 Title Records**

The site is currently owned by the Federal government and managed by the Department of Defense. Declaration of taking by the United States government for military use was made from May 5, 1902 through May 26, 1939.

#### **3.4.2 Environmental Liens**

A chain of title was obtained for the site. No information regarding environmental liens was found against the site.

#### **3.4.3 Specialized Knowledge or Experience**

Other than the information provided by the Department of the Navy contained herein, no specialized knowledge or experience was reported or discovered for the site.

#### **3.4.4 Commonly Known or Reasonably Ascertainable Information**

Other than the information provided by the Department of the Navy contained herein, no information was reported concerning commonly known or reasonably ascertainable information.

#### **3.4.5 Valuation Reduction for Environmental Issues**

No information was reported by Ohana Military Communities, LLC concerning valuation reduction for environmental issues.

#### **3.4.6 Owner, Property Manager, and Occupant Information**

Other than the information provided by the Department of the Navy contained herein, no information was reported concerning the owner, property manager, and occupants.

#### **3.4.7 Reason for Performing Phase I**

Ohana Military Communities, LLC is entering into a real estate transaction with the United States Navy. This Phase I is performed to allow Ohana Military Communities, LLC, consistent with good commercial and customary practice, to satisfy the all appropriate inquiry into the previous ownership and use of the property

#### **3.4.8 Other**

No other information of environmental interest was provided by Ohana Military Communities, LLC.

### **3.5 CURRENT USES OF THE PROPERTY**

The site consists of housing units for senior, field grade, and junior officer families and a vacant parcel located southwest of the Nob Hill housing area, as presented in Figure 3-1.

### **3.6 PAST USES OF THE PROPERTY**

Historical uses of the property were evaluated through review of databases searched by Track Info Services, LLC (TIS) and presented in an Environmental FirstSearch™ Report. The housing units at Luke Field and Nob Hill were constructed between 1918 and 1938. The housing units at Kamehameha Loop were constructed in 2003, and thus do not appear on the aerial photographs. The Luke Field and Nob Hill residential units were visible in the 1952 aerial photograph. The area where Kamehameha Loop is now located (south of Luke Field) was used for other than housing. The aerial photographs show warehouse-types of buildings on the site. Part of the site that is located southwest of Nob Hill is shown on the aerials to have been vacant through the years.

The Environmental Baseline Survey reports that initial development of Pearl Harbor occurred between 1912 and 1919. This included the establishment of NAS Ford Island and Luke Field Army Air Field 1917. Hangar and support facilities associated with Luke Field Army Air Field were on the southwestern side of the island. The Army Air Corps was responsible for storing and maintaining aircraft stationed on the island for base

defense and aircraft stationed on carriers that were in port. During this period, structures on the southeastern side of the island consisted of hangars and support facilities associated with NAS Ford Island. During this time frame, the Navy was responsible for personnel and equipment transport via seaplanes. Between the Army and Navy Air Stations was a joint-use, unpaved runway. The northwestern shoreline of the island was developed with a single row of 22 housing structures. The northeastern tip of the island contained several housing structures and bachelors' quarters. Nine former 225,000-gallon ASTs, each with secondary containment, were on the east central side of the island.

During the 1930s, filling of areas along the eastern and northern shores from dredging of the harbor channel area prior to World War II increased the size of Ford Island by approximately 20 percent (116 acres). Ford Island underwent considerable development and expansion between the 1930s and 1940s. The central portion of the island was cleared and paved for the construction of a 4,000-foot runway. Fill activities which began in the 1930s, had increased the size of the island by approximately 20 percent. All but two hangars of the former Luke Airfield had been demolished in favor of open airplane parking areas, maintenance facilities, and larger hangars. The east central end of the island was used as a disposal and burn area (i.e., the Ford Island Landfill). A UST farm, containing 52 25,000-gallon steel tanks, on the north side of Lexington Avenue near the northeastern end of the inactive runway, was also installed during this period. The UST farm replaced the nine ASTs discussed in the previous paragraph. A 30,000-linear-foot underground fuel pipeline system was installed and used to distribute fuel from the tank farm to various locations throughout the island. Ordnance was stored in bunkered facilities, primarily in the northern portion of the island. The largest bunker was near the northern shoreline and built upon a fill area, another was near the northeastern shoreline, and two were near the eastern end of the runway. Prior to and during World War II, Ford Island provided moorage and support to most of the Pacific Fleet and was also the home of NAS Ford Island. Prior to U.S. participation in World War II, Ford Island was the location of "battleship row" where many ships damaged during the Japanese attack on 7 December 1941 were docked.

### **3.7 CURRENT AND PAST USES OF THE ADJOINING PROPERTIES**

Table 3-1 in Section 3.2, *Site and Vicinity Characteristics*, provides a description of the current uses of the adjoining properties. North, east and west of the site are the surrounding waters around Ford Island. South of the site is the rest of Ford Island which is primarily used for military purposes (aviation-related activities).

In 1976, Ford Island was entered into the National Register of Historic Places. The construction of the Admiral Clarey Bridge was completed in 1998 to connect Ford Island to O'ahu.

## **4.0 RECORDS REVIEW**

This section presents information concerning the site and the surroundings from various recorded sources. Electronic databases representing standard environmental record sources and physical setting sources were reviewed. Information pertinent to the site is summarized in this section.

### **4.1 STANDARD ENVIRONMENTAL RECORD SOURCES, FEDERAL AND STATE**

Parsons has retained the services of an environmental database company to search applicable regulatory agency lists and standard environmental record sources to identify locations of potential concern within the ASTM Standard Practice E 1527-05 (Standard) minimum search distances. The following summarizes the environmental database report, dated March 10, 2006. Appendix A presents the complete environmental data report. The report includes maps indicating the search distance of 0.12, 0.25, 0.5, and 1 mile (0.2, 0.4, 0.8, and 1.6 kilometers [km]) from the center from the site, which include the ASTM database required search distances of zero, 0.125, 0.25, 0.5, and 1 mile (zero, 0.2, 0.4, 0.8, and 1.6 km).

The following subsections summarize sites listed within the respective database search distances. A search of the respective environmental databases identified twenty sites within the ASTM-prescribed minimum search distances. One site was not mapped by Environmental FirstSearch™ due to poor or inadequate location information. Exhibit 4 presents the location of the mapped sites relative to the site.

#### **4.1.1 Federal ASTM Records**

##### **National Priorities List**

The National Priorities List (NPL) listing, also known as the Superfund list, is a subset of the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database. The NPL database identifies over 1,200 sites nationwide for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As a result, the environmental database company provides coverage for over 1,000 NPL site boundaries produced by the United States Environmental Protection Agency (USEPA) Environmental Photographic Interpretation Center.

Currently, there are no NPL sites within the 1-mile (1.6-km) search distance from the site.

### **Comprehensive Environmental Response, Compensation, and Liability Information System**

The CERCLIS database contains data on potentially hazardous waste sites that have been reported to USEPA by states, municipalities, private companies, and private persons.

Notification to USEPA is pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The CERCLIS database contains sites that are either proposed to be on or on the NPL, and sites that are in the screening and assessment phase for possible inclusion on the NPL.

Currently, there are no listed CERCLIS sites located within the 0.5-mile (0.8-km) search distance from the site.

### **CERCLIS – No Further Remedial Action Planned**

Beginning in February 1995, CERCLIS site designated No Further Remedial Action Planned (NFRAP) have been removed from the CERCLIS database. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action of NPL consideration. USEPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived these as historical records so that USEPA does not needlessly repeat the investigations in the future.

Currently, there are no listed CERCLIS-NFRAP sites located within the 0.5-mile (0.8-km) search distance from the site.

### **Resource Conservation and Recovery Act / Corrective Action Report**

The Corrective Action Report (RCRA COR) database identifies hazardous waste handlers with RCRA action activity. The database shows which nationally defined corrective action core events have occurred for every handler that has currently or previously had corrective action activity.

Currently, there are no listed RCRA COR sites within the 1-mile (1.6-km) search distance from the site.

### **Resource Conservation and Recovery Act information System/Treatment, Storage, and/or Disposal**

The Resource Conservation and Recovery Act Information System/ Treatment, Storage and/or Disposal (RCRA TSD) database list identifies those facilities or locations that have notified USEPA of their activities relative to their onsite treatment, storage, and/or disposal of hazardous wastes. A listed site does not necessarily indicate environmental problems at the site but rather that the site is (or was) engaged in hazardous waste activities; therefore, it may have the potential to cause environmental degradation if hazardous wastes have been mishandled or otherwise released in an uncontrolled manner.

Currently, there are no RCRA TSD sites within the 0.5-mile (0.8-km) search distance from the site.

### **Resource Conservation and Recovery Act / Quantity Generators**

The Resource Conservation and Recovery Act Information System Sites / Quantity Generators (RCRA GEN) is a database of facilities that generate or transport hazardous waste or meet other RCRA requirements. Two categories of RCRA GEN are usually considered. Large Quantity Generators (LQGs) list identifies those facilities or locations that have notified USEPA that they generate (or have generated) at least 2,200 lbs (998 kg) of non-acutely hazardous wastes and/or 2.2 lbs (1 kg) of acutely hazardous waste, monthly. Small Quantity Generators (SQGs) list identifies those facilities or locations that have notified USEPA that they generate (or have generated) less than 2,200 lbs (998 kg) of non-acutely hazardous wastes and/or 2.2 lbs (1 kg) of acutely hazardous waste, monthly. A listed site does not necessarily indicate environmental problems on the site, but rather that the site is (or was) engaged in hazardous waste activities; therefore, it may have the potential to cause environmental degradation if hazardous wastes have been mishandled or otherwise released in an uncontrolled manner.

Currently, there are no listed RCRA GEN sites within the 0.25-mile (0.4 km) search distance from the site.

### **Resource Conservation and Recovery Act / No Longer Report**

The Resource Conservation and Recovery Act Information Sites / No Longer Report (RCRA NLR) is a database of facilities not currently classified by the USEPA but is still included in the RCRIS database. The reasons for non classification are: (1) Failure to report in a timely matter; (2) No longer in business at the listed address, and/or (3) No longer generating hazardous waste materials in quantities which require reporting.

Currently, there are no listed RCRA NLR sites within the 0.12-mile (0.2 km) search distance from the site.

### **Emergency Response Notification System**

The Emergency Response Notification System (ERNS) is an USEPA national computer database system that is used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party. The ERNS report only includes releases from 1988 to the most recent quarterly update.

Currently, there are no ERNS sites within the 0.12-mile (0.2 km) search distance from the site.

### **National Pollutant Discharge Elimination System**

The National Pollutant Discharge Elimination System (NPDES) is a database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

Currently, there are no NPDES sites within the 0.25-mile (0.4 km) search distance from the site.

### **Facility Index System**

The Facility Index System (FINDS) is a database maintained by USEPA/National Technical Information Service that contains both facility information and "pointers" to other sources or more detailed information. The FINDS is the index of identification numbers associated with a property or facility which the USEPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the USEPA office that may have files on the site or facility. A Facility Registry System (FRS) site has an FRS in the status field.

Currently, there are no FINDS sites within the 0.25-mile (0.4-km) search distance from the site.

### **Toxic Release Inventory System**

The Toxic Release Inventory System (TRIS) is an USEPA database that identifies all facilities that have had or may be prone to toxic material releases.

Currently, there are no TRIS sites within the 0.25-mile (0.4-km) search distance from the site.

### **Wetlands**

The US Fish and Wildlife Service maintains a National Wetlands Inventory (NWI) database of information summarizing characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This database is available for select areas of the United States.

Currently, there are three wetlands within the 0.5-mile (0.8-km) search distance from the site. Designation as a wetland is not an indication of an environmental discharge, violation or concern. Thus, these wetlands do not constitute a REC for the site.

### **Floodplains**

The Floodplains is a database maintained by the Federal Emergency Management Agency which summarizes 100 year and 500 year floodplain boundaries for select counties in the United States.

Currently, there are no Floodplain sites within the 0.5-mile (0.8-km) search distance from the site.

### **Receptors**

The sensitive receptors are listed by the 2002 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System), from the US Department of Commerce. This database summarizes all schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

Currently, there are no receptors listed within the 0.12-mile (0.2-km) search distance from the site.

## **Nuclear Permits**

The Nuclear Regulatory Commission of the USEPA maintains a database of permitted nuclear facilities (RADINFO). This database provides basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

Currently, there is no Nuclear Permit on record within the 0.5-mile (0.8-km) search distance from the site.

### **4.1.2 State of Hawaii ASTM Records**

#### **Underground Storage Tanks**

The Underground Storage Tanks (REG UST/AST) is a database identifying underground and aboveground storage tanks in the state of Hawaii. This database is maintained by the HDOH.

Currently, there are no REG UST/AST sites listed within the 0.25-mile (0.4-km) search distance from the site.

#### **Leaking UST**

The Leaking Underground Storage Tanks is a database identifying underground and aboveground storage tanks that have been leaking, and is maintained by the HDOH.

Currently, there are no leaking UST sites within the 0.5-mile (0.8-km) search distance from the site.

### **4.1.3 Non-ASTM Supplemental Records**

#### **Historic/Landmark**

The National Park Service maintains a National Registry of Historic Places database. This database contains the Nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architectures, archeology, engineering, and culture.

Although the database indicates that there are no Historic/Landmark sites within the 0.5-mile (0.8-km) search distance from the site, Ford Island was declared a Historic Landmark in 1964 and was entered into the National Register of Historic Places in 1976. Ford Island is significant because of the Japanese attack on Pearl Harbor.

### **Federal Land Use**

The Federal Lands of the United States is a database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the US Department of Agriculture Forest Service, the Department of Defense, the US Fish and Wildlife Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included in this listing. The database provides descriptive information that includes name and type of the Federal land and the administering agency. Indian Lands of the United States is a database of areas administered by the Bureau of Indian Affairs and exceeding 640 acres in size. This database includes Federally-administered lands within a reservation which may or may not be considered part of the reservation. Endangered Species Protection Program is a database that provides a list of the Endangered Species by county and the species status.

The site is considered a Federal Land Use site. There is another Federal Land Use site within the 0.5-mile (0.8-km) search distance from the site. Because designation as a Federal Land Use site simply indicates that the Federal Government owns and/or operates the land, these sites do not constitute a REC to the site.

### **Federal Wells**

The US Geological Survey maintains a database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States. This database is an inventory of the United States Groundwater Sites.

Currently, there are two Federal Wells sites within the 0.5-mile (0.8-mile) search distance from the site. These are historic potable water production well that do not impact the site. Thus, these sites do not constitute a REC to the site.

### **Releases (Air/Water)**

The Environmental Protection Agency has a list of Air and Surface Water Releases. This list is a subset of the ERNS-National Response System database detailing sites that have impacted only the air or surface water.

Currently, there are no Releases (Air/Water) within the 0.12-mile (0.2-km) search distance from the site.

### **Hazardous Materials Incident Response System**

The Hazardous Materials Incident Response System (HMIRS) is a database of information regarding materials, packaging, and a description of events for tracked incidents.

Currently, there were no HMIRS within the 0.12-mile (0.2-km) search distance from the site.

### **National Compliance Data Base**

The National Compliance Data Base System (NCDB) is database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts an inspection until the time the inspector closes the case or settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

Currently, there are no NCDB sites within the 0.25-mile (0.4-km) search distance from the site.

### **PADS**

The USEPA maintains a database of PCB handlers. This database includes PCB generators, transporters, storers and/or disposers that are required to register with the USEPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Currently, there are no PADS sites within the 0.25-mile (0.4-km) search distance from the site.

### **Federal Other**

Section Seven Tracking System (SSTS) within the USEPA maintains a database of registration and production data for facilities which manufacture pesticides. Aerometric Information Retrieval System (AIRS) is another database of detailed information pertaining to sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

Currently, there is no Federal Other sites within the 0.25-mile (0.4-km) search distance from the site.

## **Towers**

Towers is a database that encompasses three sources of information from the Federal Aviation Administration (FAA) and the Federal Communication Commission (FCC). FAA data includes the Digital Obstacle File which contains obstruction data for man made objects that affect domestic aeronautical charting products. FCC data includes the Wireless Telecommunication Bureau's Universal Licensing System which contains the Antenna Structure Database and the Cellular Tower Database. FCC data also includes the Mass Media Bureau's Consolidated database System which includes engineering data for AM, FM, and Television broadcasting stations.

Currently, there are no Towers within the 0.25-mile (0.4-km) search distance from the site.

## **Radon**

The USEPA collected radon data from the 1990-1991 national radon project. This project collected data for a variety of zip codes across the United States. The radon data listed here is based on the radon data collected for this site's zip code.

Based on available documents, a radon gas assessment has not been conducted on the site. Radon information for the Hawaiian Islands indicates that the USEPA has categorized Hawaii as Zone 3 for radon. A Zone 3 classification is for areas with indoor average radon levels of less than to 2 picoCuries/liter (pCi/L). This is below the USEPA radon recommended action level (RAL) of 4 pCi/L.

## **4.2 ENVIRONMENTAL AGENCY RECORDS**

Findings from the environmental database review did not reveal any RECs, and therefore there is no need for further review of agency records.

## **4.3 NAVY RECORDS AND DOCUMENTS**

### **4.3.1 *Environmental Baseline Survey and the Site Summary Report***

Application of waste oil as a dust suppressant along the road ways within the vicinity of the site may have occurred, potentially resulting in a pre-existing condition. This was reported to have been a common practice at other military installations (DON, 2006). Since no documentation can be found to support that this practice occurred at Forth Island North, it is the opinion of the EP that this does not constitute a REC for the site.

The sediments of Pearl Harbor are in the vicinity of the site. Metals, PAHs, SVOCs, chlorinated pesticides, PCBs, dioxins, chlorinated herbicides, triazine pesticides, carbamate/urea pesticides, and ordnance compounds are considered chemicals of potential concern for the sediments of Pearl Harbor. Given the site's immediate proximity Pearl Harbor, these impacted sediments are a REC.

The EBS reports that five on-site transformers (TG-01, TG-03, TG-04, TK-01D and TL-02) as either not requiring further action or as remediated with PCB in soil levels below HDOH and TSCA standards for residential exposures. As a result, these transformer sites are not RECs.

#### ***4.3.2 Long-Term Monitoring Plan, Ford Island Landfill***

The Ford Island Landfill is located at the southwestern end of Ford Island. It is approximately 4.4 acres in size and is covered with grass and shrubs. The landfill was employed from the 1930s until the late 1960s for the disposal of burned waste related to construction and maintenance activities. After burn operations were discontinued, bulk debris was disposed at the landfill and covered with soil. The landfill ceased operating in 1982. There were no disposal records maintained during the operating life of the landfill.

During the last fifteen years, several investigations have been conducted at the landfill. A total of ten groundwater monitoring wells and five exploratory trenches were advanced as part of these investigations. The investigations identified impacts from metals, semivolatile organic compounds (SVOCs) and a single polychlorinated biphenyl (PCB) compound, both in groundwater and soil. Debris recovered during the investigation included metal fragments and concrete rubble. The investigations also indicated that groundwater beneath the landfill is influenced by tidal variations in Pearl Harbor. Ash discovered below the water table, near the landfill shoreline indicated that incinerated wastes were dumped into Pearl Harbor.

From data developed during the course of the investigations, a risk evaluation was conducted. It was determined that the impacts detected in the landfill posed acceptable risks to human health and the installation of a permeable cap was recommended. The cap was installed in late 1996 and was designed to prevent impacted surface soils from eroding and entering Pearl Harbor as well as to reduce infiltration of precipitation into the landfill, thereby protecting Pearl Harbor by reducing leaching to groundwater. The cap includes a vegetative cover with an irrigation system to maintain the integrity of the cap. Infiltration is managed by a concrete drainage trench to direct surface runoff away from the landfill.

After installation of the permeable cap, a groundwater monitoring program was implemented. The groundwater monitoring well network consists of 13 monitoring wells distributed across the landfill site. Current groundwater monitoring is reporting

detections of copper, mercury and nickel, above State of Hawaii screening criteria based on surface water quality standards. To date, 15 monitoring events have been conducted.

A component of the current Long-Term Monitoring Plan for the landfill is semi-annual inspections of the topsoil and vegetative cover, irrigation system, drainage trench, shoreline and groundwater monitoring network.

In its current configuration (capped and under long-term monitoring and maintenance), the Ford Island Landfill does not pose a risk to future residents. The landfill is approximately  $\frac{3}{4}$  mile from the North Ford Island neighborhoods. Given this distance to the neighborhoods, it's not likely that groundwater impacts (metals) have migrated to the site. Thus, the landfill is not a REC.

#### ***4.3.3 Remediation Verification Report, Non-Time Critical Removal Action, Ford Island Inactive AVGAS Pipeline***

During the 1930s and 1940s, the central portion of the island was cleared and paved for the installation of a 4,000-foot airplane runway. During this period, an underground storage tank farm was installed in the east-central portion of the island, and an underground aviation gasoline (AVGAS) pipeline system was installed to distribute fuel from the tank farm to users throughout the island. Ford Island stopped serving as a military air station upon the advent of jet aircraft. In the early 1960s, the airfield was leased to the State of Hawaii Department of Transportation for limited use by civilian aircraft. The airfield ceased operating in 1999. The pipeline runs in the immediate vicinity of the South Ford Island housing area.

In 1999 and 2000, a Remedial Investigation (RI) was conducted along the entire pipeline. Although there were no documented releases of AVGAS during the operating history of the pipeline, the goal of the RI was to characterize the nature and extent of contamination at potential release locations. The RI found no unacceptable risks associated with soil or groundwater impacts. However, residual AVGAS and sludges remained in the inactive pipeline. Subsequent to the RI, gasoline impacts in soil and groundwater were detected in a monitoring well installed on Ford Island. As a result, a subsequent investigation was conducted in 2002 and 2003 to determine if a release may have occurred along the AVGAS pipeline system.

The investigation included borings along the pipeline and in the immediate vicinity of the monitoring well. All soil and groundwater samples collected reported concentrations of target analytes below project action levels. Depending upon the location of the borings, target analytes included total petroleum hydrocarbons, benzene, toluene, ethylbenzene and total xylenes (BTEX), and lead.

A removal action was conducted to reduce to acceptable levels any potential risk resulting from residual AVGAS in the pipeline and to eliminate hazards associated with ancillary equipment serving the pipeline, most notably fueling pits and valve boxes. The removal action was conducted from 2002 through 2004 and included the following:

- In-situ closure and/or the removal of approximately 42,350 lineal feet of pipeline. As part of this removal action, approximately 1,200 gallons of residual AVGAS and 24,000 gallons of impacted wastewater were removed and recycled.
- Due to corrosion, removal of approximately 1,700 lineal feet of aboveground piping associated with Piers F-1.5, F-09 and F-10. As part of this removal action, approximately 2,500 gallons of impacted wastewater were removed and recycled.
- Demolition of Fueling Pit 2 and removal and disposal of impacted soil.

The AVGAS Pipeline does not post a risk to future residents of the North Ford Island neighborhoods and is not an REC.

#### **4.3.4 Remedial Investigation – Ford Island**

A remedial investigation (RI) was conducted on Ford Island and completed in February 2003, for the Naval Facilities Engineering Command Pacific Division. The RI tested soil in various transformer locations at Ford Island, including TA-01 and S252D at the site. Soil tested at TA-01 had indications of PCB-impacted soil above the PCB screening criteria of 220 ug/kg (EPA Region 9 residential preliminary remediation goal) and 1,000 ug/kg (high-occupancy level under the Toxic Substances Control Act). The RI recommended a removal action for the PCB-impacted soil at TA-01 and no further action at S252D. The removal action was conducted in late 2003 or 2004 and impacted soils in the vicinity of TA-01 were excavated to a PCB-concentration of 1 ppm or less.

The Camel Refurbishing Area (CRA) is located along the northwestern shoreline of Ford Island. The former seaplane parking and fueling area at the CRA was used to refurbish portable marine piers known as camels by sandblasting. The sandblasting grit accumulated along the shoreline. Although the sandblasting has been discontinued, a Remedial Investigation (RI) was conducted at the CRA. Data developed during the course of the RI indicates unacceptable risks associated with surface soil along portions of the unpaved shoreline of the CRA and at two other areas. Elevated concentrations of metals were detected in soil samples from the surface to 2-feet bgs.

A soil removal action (excavation) was conducted at the CRA during the 2nd half of 2003. Approximately 3000 tons of soil was removed at the CRA shoreline. An additional 31 tons of soil was removed from the two areas away from the shoreline. At

the conclusion of the removal action, approximately 160 confirmation samples were collected to verify that cleanup goals were met. Of the 160 confirmation samples, only four had detections above project cleanup levels. A statistical analysis of the data indicates that adverse health impacts from the remaining detections above project goals are not issue of concern.

The CRA does not post a risk to future residents of the North Ford Island neighborhoods and is not an REC.

#### **4.3.5 Integrated Natural Resources Management Plan**

The Pearl Harbor Integrated Natural Resources Management Plan (DoN 2001) served as a reference for endangered species data in the Pearl Harbor area. The shoreline, estuarine and freshwater areas of Pearl Harbor are known habitat for four endemic and endangered waterbirds: the (Hawaiian) Black-necked Stilt (*Himantopus mexicanus*) or ae'o; Common Moorhen (*Gallinula chloropus sandvicensis*) or 'alae 'ula; Hawaiian Coot (*Fulica alai*) or 'alae ke 'oke 'o and Hawaiian Duck (*Anas wyvilliana*) or Koloa. Of these four species, stilt are the most common in Pearl Harbor and occur in far greater numbers than all other endangered waterbirds combined. Populations of all the endangered waterbirds have declined due to the loss of wetland habitats and the introduction of predators, such as dogs, cats and mongoose.

Two additional species of birds, listed as threatened or endangered species by the State of Hawaii but not the federal government are occasionally found in the Pearl Harbor vicinity. They are the state-threatened white term (*Gygis alba rothschildi*) or manu o ku, a diminutive arboreal-nesting seabird, and the state-endangered Hawaiian or Short-eared Owl (*Asio flammeus sandwichensis*) or pueo.

Two turtle and two marine mammal species that occur in Hawaiian waters have been declared federally threatened or endangered. The threatened green sea turtle (*Chelonia mydas*) or honu commonly occurs in the nearshore areas of Hawaii. The green sea turtle has rarely been observed in the harbor and no nesting in the harbor has been reported. The endangered hawksbill turtle (*Eretmochelys imbricate*) or honu 'ea is found infrequently in Hawaiian waters, and there are no recorded sightings of the hawksbill turtle within Pearl Harbor.

The Hawaiian monk seal (*Monachus schauinslandi*) or 'ilio holo i a uana has been observed sporadically in the main Hawaiian Islands. Though they have never been reported in the harbor, the Hawaiian monk seal has been recorded at Iroquois Point, the Pearl Harbor entrance channel.

Populations of the endangered humpback whale (*Megaptera novaeangliae*) are known to winter in the Hawaiian Islands from December to April.

#### **4.3.6 Asbestos Management Plans**

According to asbestos assessment prepared by the Department of the Navy Public Works Center (Navy Public Works Center, 1997), ACM is present in some units in floor tile and mastic. This constitutes a REC for the site.

#### **4.3.7 Lead-Based Paint Management Plans**

A lead assessment for the site was completed in July of 1997. At the time of the assessment, only Luke Field and Nob Hill housing areas existed. The assessment identified presence and levels for lead in paint, interior dust, and exterior soil (Navy Public Works Center, 1997). Results of the lead assessment for the site indicate that LBP was found in various interior components (such as baseboards, cabinets, ceilings, closet doors, closet shelves, columns, doors, door frames, door moldings, exterior doors, fireplaces, fireplace mantles, French doors, handrails, louvered doors, screen doors, sliding doors, soffits, thresholds, walls, window frames, window moldings, window moulion, and window sashes) in concentrations exceeding the current HUD/USEPA Guidance action limit of 1.0 mg/cm<sup>2</sup>. Lead levels in dust samples were found to exceed the HUD/EPA Guidance action levels of 40 µg/ft<sup>2</sup> for floors and 250 µg/ft<sup>2</sup> for window sills. Lead concentrations in dust samples on window wells were not found to exceed the current HUD/EPA Guidance action levels of 400 µg/ft<sup>2</sup>. Soil samples at the site were also found to exceed current HUD/EPA Guidance action level of 400 ppm. This constitutes a REC for the site.

A subsequent lead assessment for the site was completed in March of 2006. The assessment identified presence and levels for lead in paint (Naval Facilities Engineering Command, 2006). Results of the lead assessment for the site indicate that LBP was found in various interior components (access panels, access panel casings, awnings, baseboards, benches, cabinets, ceilings, chair rails, columns, crown molding, door casings, drip lines, eaves, electric boxes, exterior doors, exterior walls, fascia, fireplaces, foundations, gutters, interior doors, interior floors, interior walls, ladders, mantles, mirror casings, panels, panel casings, pipes, posts, rafters, railings, screen doors, shelves, structural beams, studs, thresholds, transoms, treads, trims, window casings, window sashes, window screens, and window sills) in concentrations exceeding the current HUD/USEPA Guidance action limit of 1.0 mg/cm<sup>2</sup>. This constitutes a REC for the site.

Another lead assessment for the site was completed in July of 2006. The assessment identified presence and levels for lead in paint (NAVFAC, 2006). Results of the lead assessment for the site indicate that LBP was found in various interior components (access panels, access panel casings, awnings, baseboards, benches, cabinets, ceilings, chair rails, columns, crown molding, door casings, drip lines, eaves, electric boxes, exterior doors, exterior walls, fascia, fireplaces, foundations, gutters, interior doors, interior floors, interior walls, ladders, mantles, mirror casings, panels, panel

casings, pipes, posts, rafters, railings, screen doors, shelves, structural beams, studs, thresholds, transoms, treads, trims, window casings, window sashes, and window screens) in concentrations exceeding the current HUD/USEPA Guidance action limit of 1.0 mg/cm<sup>2</sup>. Lead levels in dust samples were found to exceed the HUD/EPA Guidance action levels of 40 µg/ft<sup>2</sup> for floors and 250 µg/ft<sup>2</sup> for window sills. Lead concentrations in dust samples on window wells were not found to exceed the current HUD/EPA Guidance action levels of 400 µg/ft<sup>2</sup>. Soil samples at the site were also found to exceed current HUD/EPA Guidance action level of 400 ppm. This constitutes a REC for the site.

#### **4.4 PHYSICAL SETTINGS SOURCE(S)**

##### **4.4.1 USGS Topographic Map**

Exhibit 3 presents the location of the site on a USGS topographic map.

##### **4.4.2 Geological, Hydrogeological, and Meteorological Review**

###### **Geology**

Ford Island lies within the Pearl Harbor basin and is flanked on the east by the Aliamanu, Salt Lake, and Makalapa vents of the Honolulu series Salt Lake volcanics. Pearl Harbor is located where the Koolau shield abuts the Waianae shield. The Pearl Harbor basin is a drowned river system with its several tributaries forming today's Pearl Harbor lochs. Pearl Harbor is the result of several geologic processes, including sea level fluctuations (transgressive and regressive shorelines), stream erosion, alluvial deposits, and volcanism.

Surface soil types on Ford Island are generally classified as silty sands or sandy silts with varying amounts of gravel, owing to the high degree of development and the associated usage of fill material throughout the island. Ford Island itself is classified as coral outcrop, which consists of coral or cemented calcareous sand. However, many of the characteristics of the surface soil samples indicate that silt, sand, and graded coral gravel make up much of the fill material.

Subsurface geology underlying Ford Island consists of fill materials, weathered volcanics, coralline debris, and lagoonal deposits. The fill material is thickest around areas of construction or where the shoreline has been reclaimed. The weathered volcanics consist of weathered tuff and primarily include brown to dark gray-brown stiff clays and silts. The coralline debris deposits include gravelly clays; recemented limestone; mixtures of gravel with silt and clay; coral, sand, and clay lenses, and reef-related components. The consolidated lagoonal sediments primarily consist of soft silts and lean clays.

## **Hydrogeology**

Ford Island is located in the Honolulu-Pearl Harbor basal groundwater aquifer area. The shallow groundwater beneath Ford Island is considered nonpotable and not hydraulically connected to the basal aquifer of O'ahu. The source of shallow Ford Island groundwater is believed to originate from infiltration of precipitation combined with intrusion of seawater. As a result, the shallow groundwater is generally brackish.

Tidal influences affect groundwater elevations within the surficial caprock aquifer underlying Ford Island. During falling tide, groundwater elevations in the center of the island are higher than during high tide. This phenomenon is reflective of the lag time that occurs between the occurrence of high tide in Pearl Harbor and the appearance of the effects of high tide that occur in the center of the island. During rising tide, groundwater elevations in the center of the island decrease slightly from the elevations observed during low tide, reflecting the lag time that occurs between tidal changes and groundwater elevations in the center of the island. Apparent stagnation points can be observed across the island during falling and rising tides. Little to no hydraulic gradient characterizes the stagnation points and surrounding areas. Groundwater flow during the transition between high and low tide is non-uniform, reflecting the heterogeneous nature of the surficial caprock aquifer.

## **Meteorology**

The prevailing winds at Ford Island are the northeast tradewinds that blow approximately nine months out of the year. During the rest of the year, mild offshore and south/southeast winds prevail. Winds to 40 miles per hour occasionally occur from the north or northwest.

The median rainfall for the region lies between 20 and 30 inches. Occasional heavy rains during southerly winds from November to April may cause heavy flooding.

Summer mid-afternoon temperatures range between 87° to 89°F, while nighttime temperatures range between 72° to 76°F. Winter and early spring daytime highs are typically between 76° to 78°F, and nighttime lows may reach the high 50s or low 60s.

## **4.5 HISTORICAL USE INFORMATION**

### **4.5.1 Aerial Photographs**

Copies of aerial photographs of the site and surrounding areas were obtained for the years 1952, 1967, 1973, 1982 and 1994 from TIS. These photographs are presented in Appendix B. The following historical information was identified on the aerial photographs:

1952: Luke Field and Nob Hill are evident on the aerial photograph. The area south of Luke Field which is now Kamehameha Loop is occupied by warehouse-type buildings. The area southwest of Nob Hill is vacant.

1967: No change.

1973: No change except for more dense vegetation at housing areas.

1984: No change.

1994: No change, except new structures are evident at southwest portion of Ford Island.

#### **4.5.2 Historic Topographic Maps**

Copies of historic topographic maps of the site and surrounding areas were obtained for the years 1959, 1968, 1983 and 1999 from TIS. These maps are presented in Appendix C. The site development as recorded on the historic topographic maps is closely aligned with the development presented in the historical aerial photographs.

#### **4.5.3 Fire Insurance Maps**

Sanborn® fire insurance maps were not available for the site.

#### **4.5.4 Recorded Land Title Records**

The site is currently owned by the Federal government and managed by the Department of Defense. Declarations of takings by the United States government for military use were made from May 5, 1902 through May 26, 1939.

#### **4.5.5 Building Department Records**

The site is currently owned by the Federal government and managed by the Department of Defense. Parsons coordinated with the Navy during the site reconnaissance and records search. Information regarding date of construction and subsequent modifications to structures was reviewed and incorporated into this assessment from information provided by the Navy, available on the Internet and other documents provided by the Design contractor.

#### **4.5.6 Zoning/Land Use Records**

The zoning designation for the site is F-1, Military and Federal.

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## **5.0 INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS**

Parsons conducted reconnaissance of the site on March 1, 2006. Interviews of Navy personnel were conducted on August 9-10, 2006. The site serves as residential housing and is primarily occupied.

### **5.1 HAZARDOUS SUBSTANCES IN CONNECTION WITH IDENTIFIED USES**

During the site reconnaissance, hazardous substances were not observed at the site.

### **5.2 HAZARDOUS SUBSTANCE CONTAINERS AND UNIDENTIFIED SUBSTANCE CONTAINERS**

No containers were identified during the site reconnaissance.

### **5.3 STORAGE TANKS**

During the site reconnaissance, there were no storage tanks observed at the site.

### **5.4 INDICATIONS OF PCBS**

During the site reconnaissance, land-based power transformers and fluorescent lighting that have the potential to contain PCBs were observed in various locations of the property. Regarding the power transformers, PCB-free labels were observed during the course of the site reconnaissance of military facilities. As a result, it is likely that the transformer oil currently used at the site is PCB-free.

Regarding fluorescent lighting, the majority of lights were of a newer, ballast-free design and thus likely to be PCB-free. However, older exterior fixtures were observed, notably in carport areas, and older fixtures may remain in units that were not inspected during the site reconnaissance. This constitutes a REC for the site.

### **5.5 INDICATIONS OF ASBESTOS**

Suspect ACMs may be present in the following building materials: mastic for carpet, tiling and rubber baseboards, roof tar, sink undercoating and drywall joint compound. This constitutes a REC for the site.

### **5.6 INDICATIONS OF SOLID WASTE DISPOSAL**

During the site reconnaissance, minimal domestic trash (litter) was observed.

## **5.7 PHYSICAL SETTING ANALYSIS, IF MIGRATING HAZARDOUS SUBSTANCES ARE AN ISSUE**

Section 4.1 summarizes potential concerns regarding nearby sites that may have an impact on the site and Section 4.4 summarizes the physical setting. Migrating hazardous substances are not considered a concern at the site.

## **5.8 WETLANDS AND FLOODPLAINS**

No wetlands or floodplains were observed during the site reconnaissance.

## **5.9 LEAD**

During the site reconnaissance, only exteriors were observed at Luke Field and Nob Hill. They were observed to be in good to fair (i.e. chipping) condition. It was noted that exterior wood components (e.g. door and window casings, beams, exterior walls) may be original to the structure and likely containing LBP. This constitutes a REC for the site.

Because the units at Kamehameha Loop were constructed in 2003, it is unlikely that these units will contain LBP. Paint conditions in the interior and exterior of units inspected in this housing area were observed to be good.

## **5.10 ENDANGERED SPECIES AND SENSITIVE ENVIRONMENTS**

### ***5.10.1 Endangered Species***

No endangered species were observed during the site reconnaissance.

### ***5.10.2 Sensitive Environments***

No sensitive environments were observed during the site reconnaissance.

## **5.11 INTERVIEWS**

### ***5.11.1 Military Organizations***

(b) (6) and (b) (6), environmental scientists representing NAVFAC PAC, were interviewed on August 10, 2006 (Parsons 2006).

(b) (6), Family Housing Program Director for the COMNAV Region Hawaii, was also interviewed on August 9, 2006 (Parsons 2006).

### ***5.11.2 Hawaii Department of Health***

The Hawaii Department of Health (HDOH) maintains a database of Activity and Use Limitations (AULs). The database was queried to determine if the subject property has

any recorded AULs. No AULs were recorded. However, the database is still under development and according to HDOH representatives (b) (6) and (b) (6), August 8, 2006), this may indicate that the site is currently under evaluation for applicable restrictions. The HDOH representative also indicated that the primary source of information for the database for military family housing sites is the Finding of Suitability (FOS) report (Parsons, 2006). The FOS was reviewed and it was determined that there are no AULs for the subject site (DON, 2006).

#### **5.12 OTHER CONDITIONS OF CONCERN**

The vacant units inspected at the site are in the Kamehameha Loop housing area. No indications of termite infestation were observed during the site reconnaissance. Historically chlordane containing pesticides have been used in the management of termite infestation, typically applied during construction of homes under slabs and around the foundations. This constitutes a REC for the site.

Because of the age of the units at Luke Field and Nob Hill, it is likely that canec boards were used for interior walls and ceilings. This constitutes a REC for the site.

Smoke detectors in older units have the potential to contain a radioactive source. Prior to demolition, smoke detectors should be inspected for a radioactive source and handled and disposed of accordingly. This constitutes a REC for the site.

Light switches and lamps in older units have the potential to contain mercury. This constitutes a REC for the site.

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## **6.0 FINDINGS**

### **6.1 FINDINGS SUMMARY**

In conclusion, based upon the definition of a REC in the ASTM Standard Practice E 1527-05, the following RECs have been identified for the site:

- Building materials suspected of containing asbestos include mastic for carpet, tiling, and rubber baseboards, roof tar, sink undercoating, and drywall joint compound. According to asbestos assessments prepared by the Department of the Navy Public Works Center (Navy Public Works Center, 1997), ACM is present in some units in floor tile and mastic. It is recommended that the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.
- Lead assessments confirmed the presence of lead in paint, dust and soil at the Luke Field and Nob Hill housing areas of the site exceeding current action limits (Navy Public Works Center, 1997). It is recommended that the presence of LBP be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- Canec board may comprise the interior walls and ceilings of housing units at Luke Field and Nob Hill. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste. It is recommended that interior walls and ceilings that are suspected to be canec board be sampled for total arsenic using toxic characteristic leaching procedure (TCLP) to determine proper handling and disposal requirements.
- Fluorescent lighting that may be in use at the units at Luke Field and Nob Hill may use PCB-containing ballasts. It is recommended that potential PCB-containing ballasts be properly managed, during demolition and/or renovation.
- Due to the historic use of chlordane as a termiticide in homes, chlordane may exist in the soil near the foundation and under the building slabs. Prior to renovation activities, surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- Smoke detectors in older units have the potential to contain a radioactive source. Prior to renovation, smoke detectors should be inspected for a radioactive source and handled and disposed of accordingly.

- Light switches and lamps in older units have the potential to contain mercury. During demolition, these switches and lamps should be removed and disposed of properly.
- The sediments of Pearl Harbor are in the vicinity of the site. Metals, PAHs, SVOCs, chlorinated pesticides, PCBs, dioxins, chlorinated herbicides, triazine pesticides, carbamate/urea pesticides, and ordnance compounds are considered chemicals of potential concern for the sediments of Pearl Harbor. Given the site's immediate proximity Pearl Harbor, these impacted sediments are a REC.

## **7.0 OPINION**

Based on the findings of our assessment, Parsons provides the following opinions on the observed conditions:

The following RECs have been identified for the site:

- **ACM** - According to asbestos assessments prepared by the Department of the Navy Public Works Center (Navy Public Works Center, 1997), ACM is present in some units in floor tile and mastic. It is the opinion of the environmental professional (EP) that although the ACM is contained and does not present a risk to tenants, it is recommended that the presence of ACM be disclosed to prospective tenants. It is also recommended that during demolition activities, the ACM Management Plan be followed.
- **LBP** - Lead assessments confirmed the presence of lead in paint, dust and soil at the Luke Field and Nob Hill housing areas of the site exceeding current action limits (Navy Public Works Center, 1997). It is the opinion of the EP that although the LBP does not present a risk to tenants, the presence of LBP should be disclosed to prospective tenants. Also, it is recommended that the LBP Management Plan be followed during demolition activities. It is recommended that LBP waste be tested for TCLP prior to disposal.
- **Arsenic** - It is the opinion of the EP that canec board may comprise interior walls and ceiling of some of the housing units. Canec may contain arsenic at levels requiring handling and disposal as a hazardous waste and may or may not be uniformly distributed throughout the canec. As a result, it is the opinion of the EP that interior wall and ceiling suspected to be canec be sampled for total arsenic (TCLP) to determine proper handling and disposal requirements.
- **PCB-containing ballasts** - It is the opinion of the EP that older fixtures observed at the site may contain PCB-containing ballasts. Although they pose no risk to residents, potential PCB-containing ballasts should be properly managed.
- **Pesticides** - Due to the historic use of chlordane as a termiticide in homes, it is the opinion of the EP that chlordane may have been employed at the site for pest control. As a result, surface and near-surface soil sampling for chlordane and other pesticides, including DDT, dieldrin, and heptachlor, is recommended.
- **Radioactive source** - It is the opinion of the EP that smoke detectors in older units have the potential to contain a radioactive source. Although the smoke detectors pose no risk to residents, they should be inspected for a radioactive source and handled and disposed of accordingly.

- Mercury - It is the opinion of the EP that switches in older units have the potential to contain a mercury. Although mercury-containing switches pose no risk to residents, during demolition, they should be removed and disposed of properly.
- Sediments - The sediments of Pearl Harbor are in the vicinity of the site. Metals, PAHs, SVOCs, chlorinated pesticides, PCBs, dioxins, chlorinated herbicides, triazine pesticides, carbamate/urea pesticides, and ordnance compounds are considered chemicals of potential concern for the sediments of Pearl Harbor. Given the site's immediate proximity Pearl Harbor, it is the opinion of the EP that these impacted sediments are a REC.

The EBS reports that the application of waste oil as a dust suppressant along the road ways within the vicinity of the site may have occurred, potentially resulting in a pre-existing condition. This was reported to have been a common practice at other military installations. Since no documentation can be found to support that this practice occurred at the site, it is the opinion of the EP that this does not constitute a REC for the site.

It is the opinion of the EP that the Ford Island Landfill is not a REC to the site. Although landfill waste (metals) has impacted groundwater in the immediate vicinity of the landfill, the landfill is approximately  $\frac{3}{4}$  mile from the North Ford island neighborhoods. It is unlikely that metals in groundwater have migrated from the landfill to the neighborhoods.

It is the opinion of the EP that the AVGAS Pipeline is not an REC to the site. The Pipeline has been remediated and does not pose a risk to future residents of the North Ford Island neighborhoods.

It is the opinion of the EP that the CRA is not an REC to the site. The CRA has been remediated and does not pose a risk to future residents of the North Ford Island neighborhoods.

It is the opinion of the EP that on-site transformer sites are not RECs because PCB in soil concentrations are below HDOH and TSCA standards for residential exposures.

## **8.0 CONCLUSIONS**

Parsons has conducted this Phase I Environmental Site Assessment in accordance with the American Society for Testing and Materials Standard Practice E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Assessment Process* of the North Ford Island Family Housing Area located in Pearl Harbor Area of O'ahu, Hawaii. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

### **8.1 GENERAL CONCLUSIONS**

Per the findings above, the following RECs were identified for the site: (1) ACM, (2) lead, (3) PCB-containing ballasts, (4) smoke detectors, 5) mercury switches in housing units and associated structures, (6) arsenic in canec walls and ceilings, (7) chlordane and other pesticides, including DDT, dieldrin, and heptachlor, in soil, and (8) sediments located in Pearl Harbor.

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## **9.0 DEVIATIONS AND DATA GAPS**

### **9.1 DEVIATIONS**

Photographs were not taken during the course of the site reconnaissance.

### **9.2 DATA GAPS**

Data is not presented in the following report sections:

#### **3.4.5 Valuation Reduction for Environmental Issues**

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## **10.0 REFERENCES**

### **10.1 REFERENCES**

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Asbestos Management Plan, Ford Island-PH (30, 68, 90 & 330). Navy Public Works Center – Norfolk, VA. July 1996

Asbestos Management Plan, Ford Island-PH (106-120). Navy Public Works Center – Norfolk, VA. January 1997

Asbestos Management Plan, Ford Island-PH (321-323). Navy Public Works Center – Norfolk, VA. October 1996

Asbestos Management Plan, Ford Island-PH (324-329, 331-339). Navy Public Works Center – Norfolk, VA. February 1997

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Lead Management Plan, Ford Island-PH (106-120). Navy Public Works Center – Norfolk, VA. January 1997

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
NORTH FORD ISLAND FAMILY HOUSING AREA  
PEARL HARBOR AREA OF O'AHU, HAWAII**

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Lead-Based Paint Survey for the Ford Island Housing Area, Pearl Harbor, Oahu, Hawaii. Naval Facilities Engineering Command, Pacific – Pearl Harbor, HI. July 2006.

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Final Finding of Suitability to Support the Public-Private Venture of the Department of the Navy Housing, Pearl Harbor Naval Complex, Camp Stover, NCTAMS PAC Wahiawa, Oahu and PMRF Kauai, Hawaii for Naval Facilities Engineering Command Pacific Division. August 2006.

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Personal communication between (b) (6) of COMNAV Region Hawaii and (b) (6) and (b) (6) of Parsons. August 9, 2006.

Personal communication between (b) (6) and (b) (6) of NAVFAC PAC and (b) (6) and (b) (6) of Parsons. August 10, 2006.

**PHASE I ENVIRONMENTAL SITE ASSESSMENT  
NORTH FORD ISLAND FAMILY HOUSING AREA  
PEARL HARBOR AREA OF O'AHU, HAWAII**

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TIS. Historical Aerial Photograph Report February 21, 2006.

TIS. Historical Topographic Map Report. February 21, 2006.

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Remedial Investigation Ford Island Pearl Harbor Naval Complex, Oahu, Hawaii, Earth Tech, Inc. February 2003

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## **11.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

Parsons declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR 312.

Signature:

Date:

(b) (6)  
\_\_\_\_\_  
(b) (6), P.E.

September 2006

(b) (6)  
\_\_\_\_\_  
(b) (6), P.E.

September 2006

(b) (6)  
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(b) (6)

September 2006

(b) (6)  
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(b) (6)

September 2006

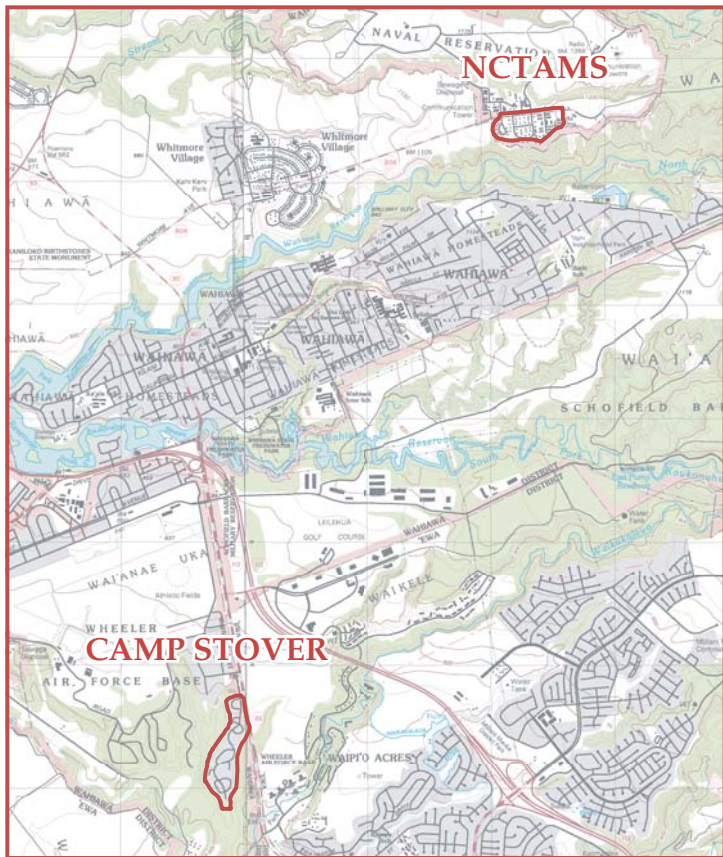
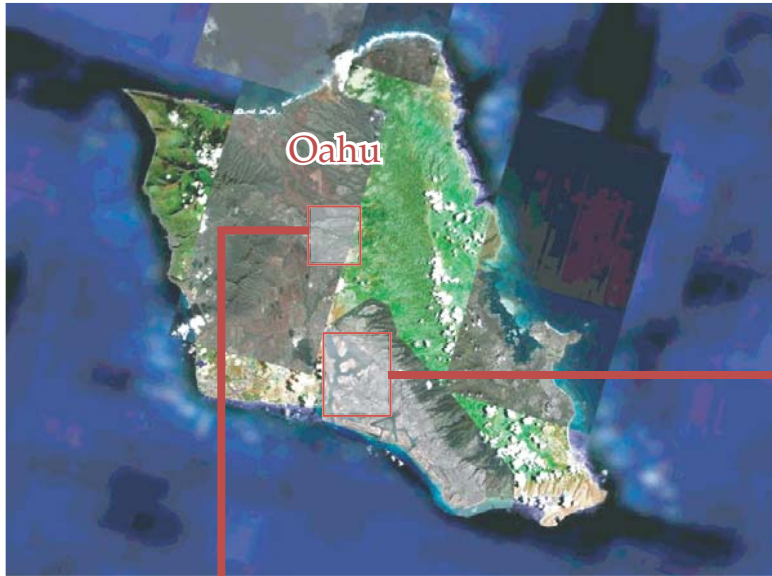
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## **12.0 QUALIFICATION(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

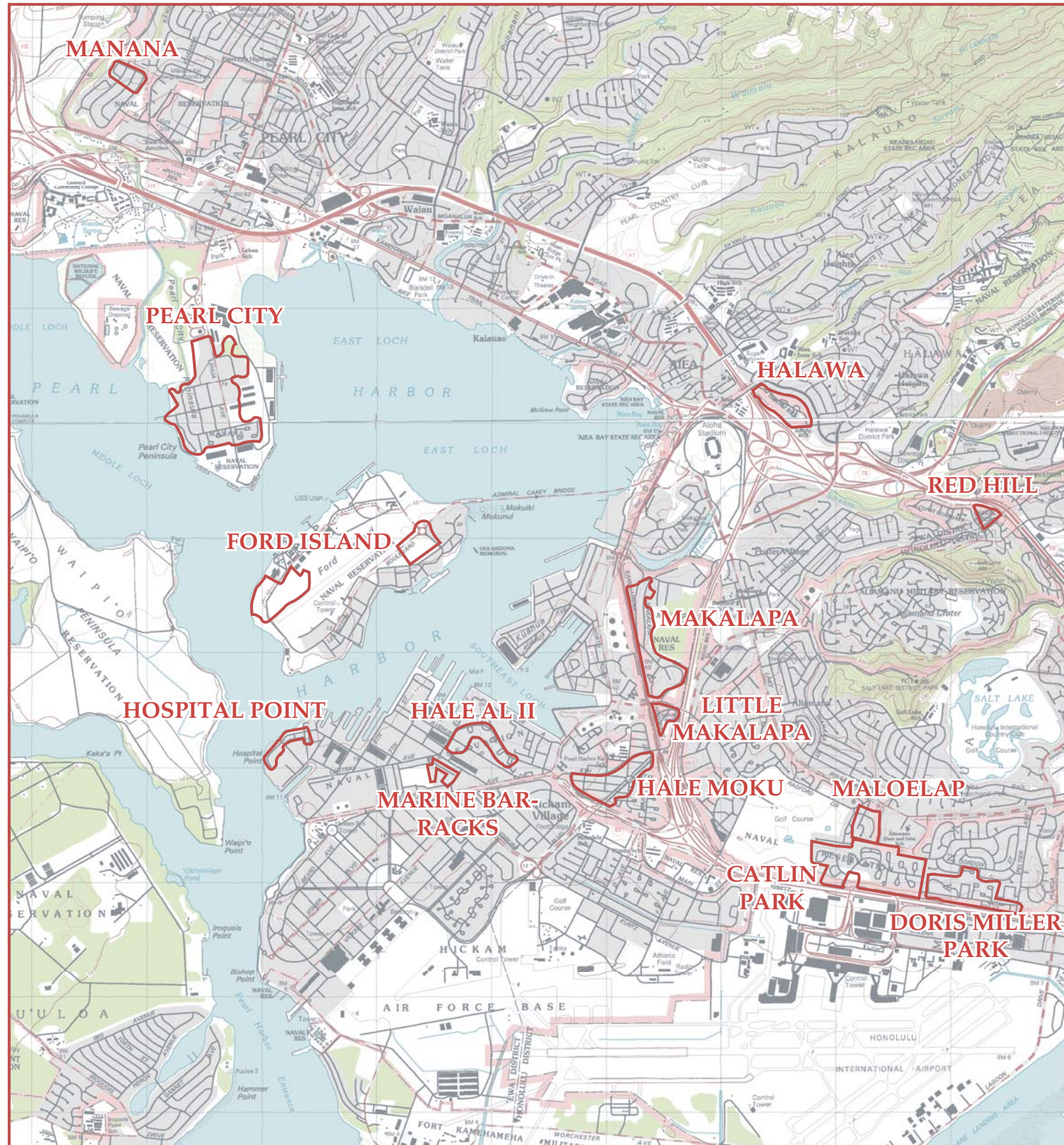
<b>Name</b>	<b>Degree</b>	<b>Years of Experience</b>	<b>Project Responsibilities</b>
(b) (6), P.E.	M.S., Chemical Engineering	28	Site reconnaissance, data review and report preparation
(b) (6), P.E.	M.S., Chemical Engineering	27	Site reconnaissance, data review and report preparation
(b) (6)	B.A., Environmental Studies	5	Site reconnaissance, data review and report preparation
	B.A., Anthropology		
(b) (6)	B.S., Chemical Engineering	3	Site reconnaissance, data review and report preparation

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EXHIBIT 1  
SITE MAP



0' 2500' 5000'



0' 2000' 4000'

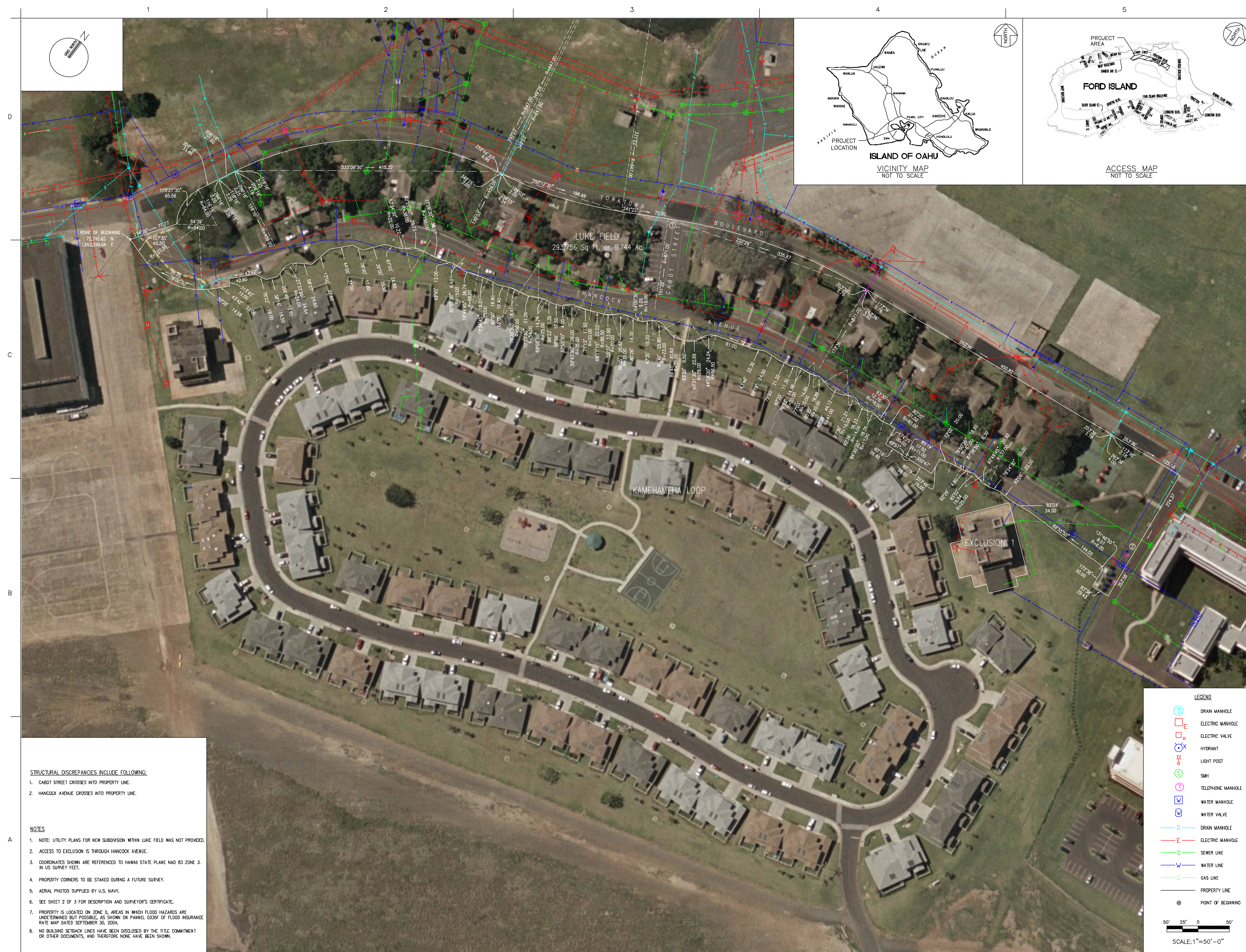
# NAVY INCREMENT III SITES CONTEXT Overall Location Map

Honolulu, Hawaii



June 2006

EXHIBIT 2  
SITE SURVEY MAP

[illegible]

Designed by:	Date: 9-13-06	Rev.
Drawn by: Rommel Olafso	Design file no.	
Reviewed by: Erik Kaneshiro	Drawing code:	
Submitted by: Erik Kaneshiro	Plot date: 9-13-06	
Inspector: Survey Dept	Plot scale: 1 in = 50 ft	

PARSONS  
NAVY FAMILY HOUSING PPV  
INCREMENT II

MODIFIED ALTA/ACSM LAND TITLE SURVEY  
FORD ISLAND  
LUKE FIELD

Sheet  
reference  
number:  
—

Sheet 1 of 3





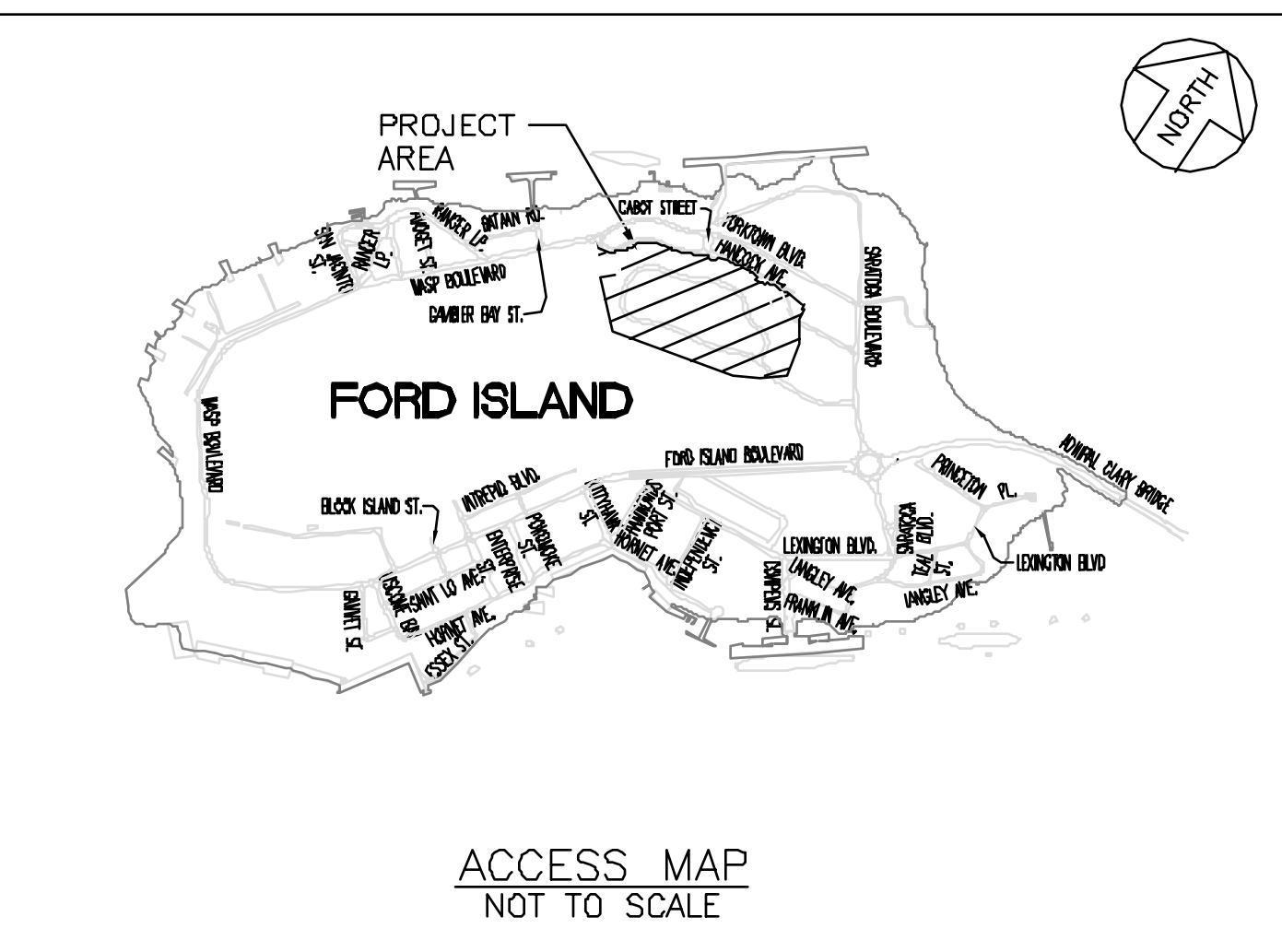
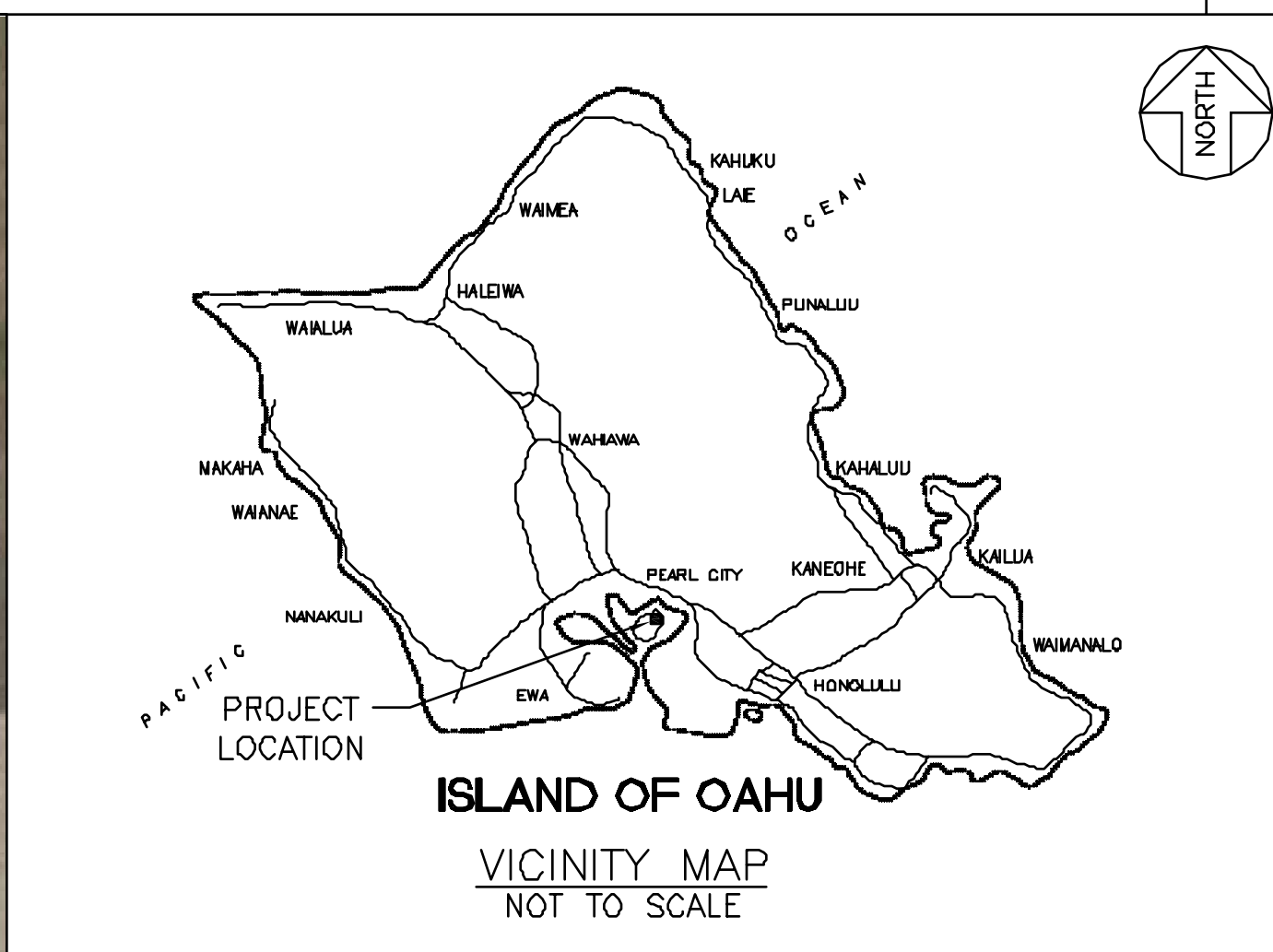


STRUCTURAL DISCREPANCIES INCLUDE FOLLOWING:

1. ROAD "A" CROSSES INTO PROPERTY LINE.

NOTES

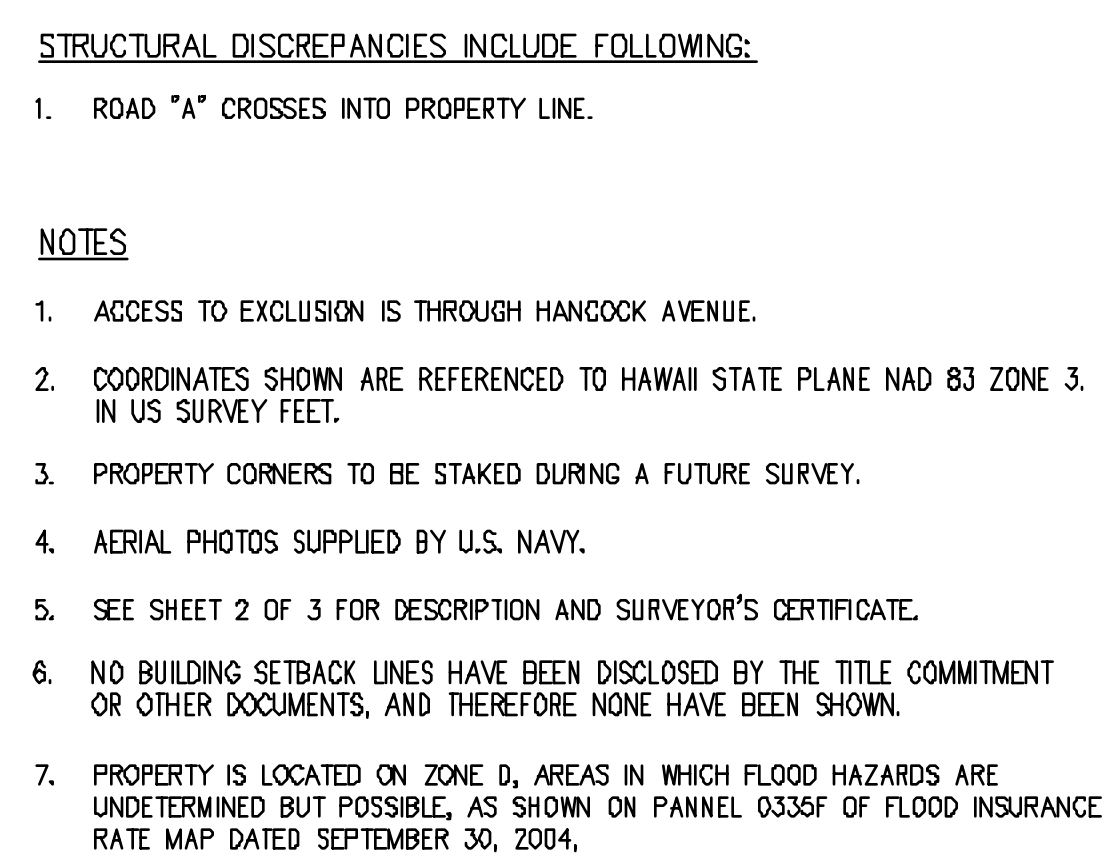
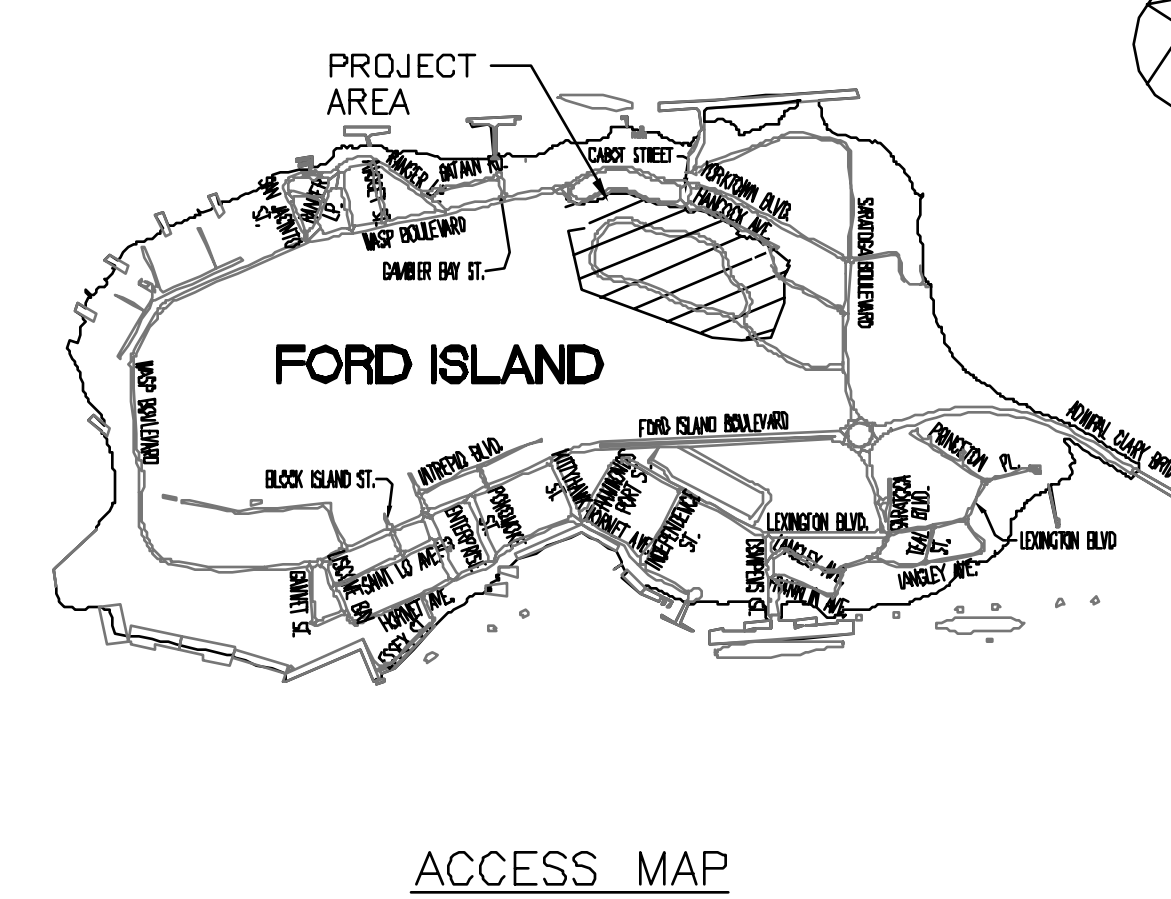
1. ACCESS TO EXCLUSION IS THROUGH HANCOCK AVENUE.
2. COORDINATES SHOWN ARE REFERENCED TO HAWAII STATE PLANE NAD 83 ZONE 3, IN US SURVEY FEET.
3. PROPERTY CORNERS TO BE STAKED DURING A FUTURE SURVEY.
4. AERIAL PHOTOS SUPPLIED BY U.S. NAVY.
5. SEE SHEET 2 OF 3 FOR DESCRIPTION AND SURVEYOR'S CERTIFICATE.
6. NO BUILDING SETBACK LINES HAVE BEEN DISCLOSED BY THE TITLE COMMITMENT OR OTHER DOCUMENTS, AND THEREFORE NONE HAVE BEEN SHOWN.
7. PROPERTY IS LOCATED ON ZONE 5, AREAS IN WHICH FLOOD HAZARDS ARE UNDETERMINED BUT POSSIBLE, AS SHOWN ON PANEL 0330F OF FLOOD INSURANCE RATE MAP DATED SEPTEMBER 30, 2004.



LEGEND	
	DRAIN MANHOLE
	ELECTRIC MANHOLE
	ELECTRIC VALVE
	HYDRANT
	LIGHT POST
	SMH
	TELEPHONE MANHOLE
	WATER MANHOLE
	WATER VALVE
	DRAIN LINE
	ELECTRIC LINE
	SEWER LINE
	WATER LINE
	GAS LINE
	PROPERTY LINE
	POINT OF BEGINNING

DESIGNED BY: PARSONS 1138, 800-451-1111 HONOLULU, HAWAII 96813		DATE: 8-13-06	REV:
DRAWN BY: RICHARD OLIVER		DATE: 8-13-06	REV:
CHECKED BY: ERIC KIMMEL		DATE: 8-13-06	REV:
APPROVED BY: ERIC KIMMEL		DATE: 8-13-06	REV:
PROJECT: MODIFIED ALTA/ACSM LAND TITLE SURVEY FORD ISLAND KAMEHAMEHA LOOP		DATE: 8-13-06	REV:
SHEET: 1 OF 3		DATE: 8-13-06	REV:



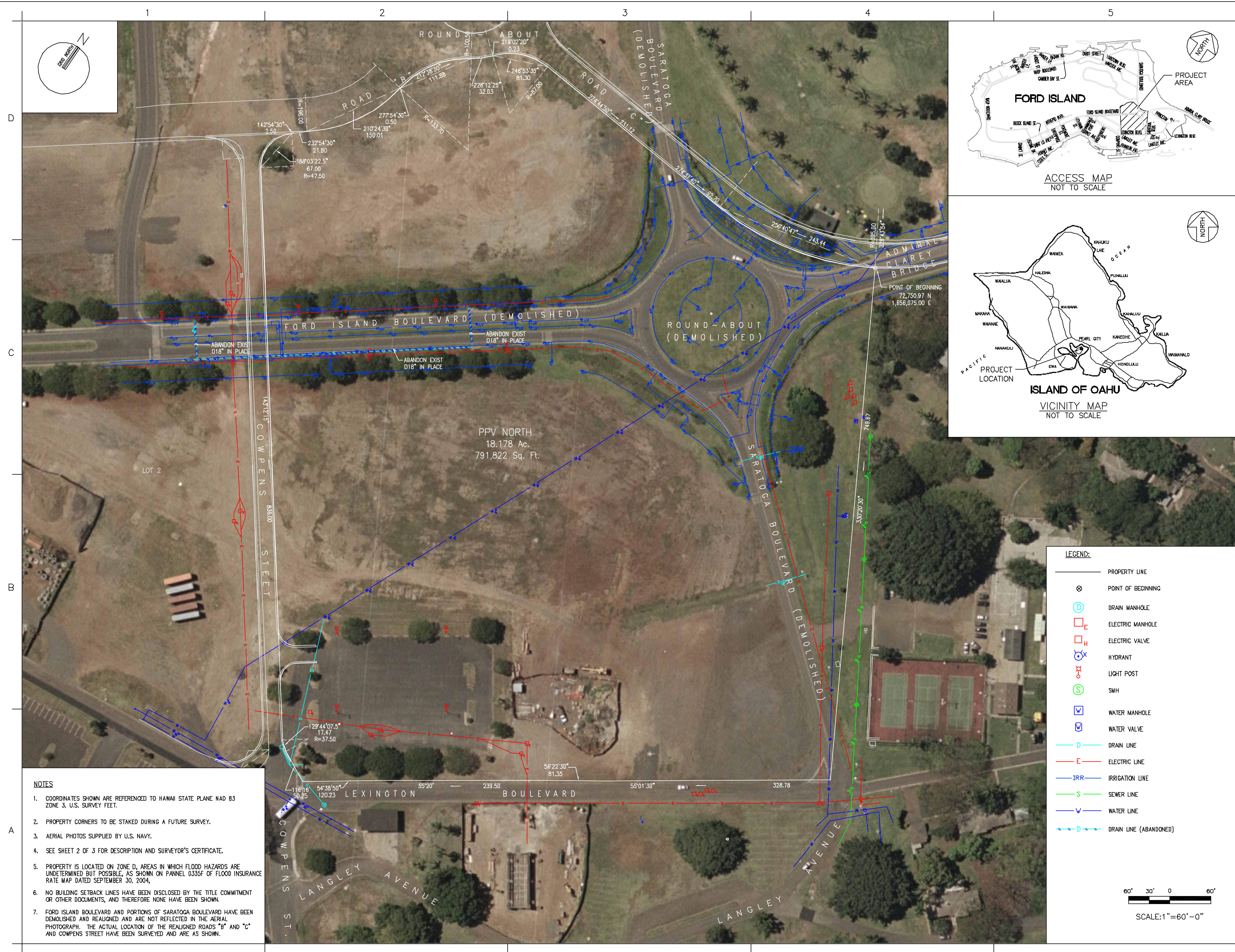


Sheet  
reference  
number:  
—  
Sheet 3 of 3









Survey Certificate

Subject Premises: PPV North  
Halawa, Ewa, Oahu, Hawaii

The undersigned, as to the property described and depicted in the attached survey and/or Modified ALTA/ACSM Land Title Survey, Kamehame Marine Corps Base Hawaii, Pa Aoua South," hereby certifies to O'ahu Military Communities, LLC, Hawaii Military Communities, LLC, Merritt Lynch, Pierce, Fennar & Smith Incorporated and its affiliates, Kamehame Land Title Insurance Company, Island Title Corporation, United American of America, Department of the Navy, MSHA Insurance Corporation, CITE Assurance North America, Inc., Leffman Brothers, Inc., Ballard Spahr Andrews & Ingersoll, LLP, Hutton & Williams, LLP, Chun Rhee & Kim, LLP, The Bank of New York Trust Company, N.A. and Trianoff Real Estate Advisors, LLC, and their respective successors and assigns, as of the date of this Survey Certificate, that:

(1) I am a registered surveyor (No. 9826) licensed by the State of Hawaii.

(2) The attached survey entitled "Modified ALTA/ACSM Land Title Survey, Ford Island, PPV North" was prepared by me, or directly under my supervision, after inspection of the premises on the ground at various times from April 29, 2006 through June 15, 2006, and accurately and correctly represents the facts and conditions found at the time of survey. The attached survey consists of a total of 3 sheets. The first sheet of the survey is accompanied by an aerial photograph of each parcel of the subject property (the "Aerial Page");

(3) The survey accurately and correctly shows:

(a) The boundary lines of the subject property and the area of the subject property, and each parcel thereof, as measured in both acres and square feet (and that the lines of actual possession are the same, except as expressly noted);

(b) The location of all easements, rights-of-way and other matters with respect to the subject property (or any part thereof) in accordance with the provisions of Section 5(h) of the "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted in 2005 by American Land Title Association ("ALTA") and National Society of Professional Surveyors ("NSPS") (the "ALTA Standards"), and the location of all easements, rights-of-way and other matters with respect to the subject property (or any part thereof) of which I have knowledge or have been advised (whether or not recorded), and applicable to the subject property, shall be shown on the survey. If the surveyor is unable to locate any easement or if applicable, cross-referenced to the location number in the commitment for title insurance, (and including whether the same apply to and can be located and plotted on the survey).

(c) As shown on the Aerial Page only, all publicly-dedicated and maintained abutting streets and roadways providing access to the subject property specifically showing the access points thereon and the name thereof, together with map insets showing access over Navy-owned roads or other passable accessways to the first point of contact with a publicly dedicated and maintained road or other passable accessway.

(d) All utility lines, facilities and equipment, the existence and location(s) of which is based upon (1) "as-built" maps, drawings, plans and other documentation and information provided by New York Public Works (identified on the survey by available information with respect to such drawings, plans and other documentation and information), and the existence and location(s) of which (as shown on such "as-built" maps, drawings, plans and other documentation and information) have been (2) confirmed and verified by visual inspection on the ground completed by me or someone directly under my supervision at various times from April 29, 2005 to June 15, 2006, and (3) corrected if necessary based upon and in accordance with such visible inspection on the ground; or (4) observed evidence.

(e) The scale, north direction, beginning point, and point of reference from which each parcel of the subject property is located:

(f) A vicinity map showing the subject property in reference to major street intersections.

(g) The measured and computed courses and distances of the exterior property lines of each parcel of the subject property (also showing the point of beginning thereof), which form a mathematically closed figure and coincide with the separate metes and bounds or other legally sufficient legal descriptions of the boundaries of each respective parcel of the subject property provided to the parties listed above;

(h) The location of all monuments, stakes or marks on the subject property or upon which the establishment of the corners of the subject property depend, whether found or placed; and

(i) The location and boundaries (with measured and computed courses and distances) of those areas of the subject property, if any, that are subject to partial legislative jurisdiction, concurrent legislative jurisdiction or proprietary jurisdiction;

(4) Except as shown and noted on the survey, there are no (a) encroachments upon the subject property by any buildings, fences or other structures upon adjacent property, streets or alleys, (b) encroachments on adjacent property, streets or alleys by any buildings, fences or other structures on the subject property, (c) party walls, (d) conflicts or protrusions, or (e) visible discrepancies, shortages in area or boundary line conflicts;

(5) Adequate ingress to and egress from the subject property is provided by way of Admiral Clarey Bridge to Lexington Boulevard, each of the same being paved and routinely maintained by U.S. Department of Navy.

(B) No building setback lines have been disclosed by the title commitment or other documents, and therefore none have been shown.

(7) Property is located on Zone D, areas in which flood hazards are undetermined but possible, as shown on parcel 0335F of Flood Insurance Rate Map Dated September 30, 2004;

(8) This survey is made at least in accordance with the ALTA Standards, except:

(a) for the provisions of Paragraph 5(c) (only with respect to names and widths and location of pavement for streets and highways), 5(d) (the exact property address of private roads, but without limiting the provisions of Section 3(c) and 3(d) of this Survey Certificate), Section 5(e) (only as it relates to contiguous, gaps and overlaps interior to exterior boundaries), Section 5(f), 5(g) (but without limiting the provisions of Section 3(c) and 3(d) of this Survey Certificate), 5(h) (only as it relates to driveways and alleys on or crossing the subject property, but without limiting the provisions of Section 3(c) and 3(d) of this Survey Certificate), and includes Items 1, 2, 3, 4, 6, 10 and 14 of Table A thereof; and

(b) that (check applicable provision(s); if nothing checked, then not applicable).

(1) The subject property is, as of the date of this Certificate, comprised in whole or in part of existing recorded Land Court lot(s) that are the subject of petition(s) and map(s) for consolidation and/or resubdivision filed with Land Court and which, as of the date of this Certificate, are pending final Land Court approval. The boundary lines of the subject property shown on the survey depict the proposed final boundaries of the subject property as shown on the map(s) and as shown on the pending Land Court petition(s) and map(s). The survey does not depict the boundary lines of the existing recorded Land Court lot(s) of which the subject property is currently a part. Upon final Land Court approval of the pending petition(s) for the consolidation and/or resubdivision necessary to create the subject property (as reflected by the boundary lines depicted in the pending Land Court petition(s) and map(s)), the undersigned shall execute and deliver an updated certificate in the same form and substance as this Certificate without the provisions of this Section 8(b) as of the date of such updated certificate; and/or

(2) X The survey of the subject property is an original survey of lot(s) comprised in whole or in part of Regular System land lot(s). A surveyor's affidavit certifying the metes and bounds description of the Regular System land lot(s) of which the subject property is a part has not been recorded in the Bureau of Conveyances of the State of Hawaii. The survey, therefore, only reflects, and the undersigned only certifies, the metes and bounds description of the subject property as depicted on the survey.

(9) The Aerial Page of the survey shows all internal streets and roadways, buildings and improvements thereon (identified on the survey by available information with respect to such photograph including, if available, the date thereof) with the boundary lines, easements and the location of utility facilities and equipment within and upon the subject property superimposed thereon. The undersigned do not certify as to the accuracy of the aerial photograph.

(10) Pursuant to the accuracy standards as adopted by ALTA and NSPS, and in effect on the date of this Survey Certificate, the undersigned certifies that in my professional opinion, as a land surveyor registered in the State of Hawaii, the Relative Positional Accuracy of this survey does not exceed that which is specified therein; and

(11) This survey conforms to the current minimum local and state standards and standards of care for surveys of the State of Hawaii.

*The parties listed above are entitled to rely on the survey and this certificate as being true, complete and accurate in all respects.*

Dated this 27th day of September, A.D., 2006

By: ERIK S. KANESHIRO  
Licensed Professional Land Surveyor

Registration No 9826

*Dated: September 27, 2006*

PPV NORTH

Being a portion of the U.S. Naval Reservation, Ford Island, Situate at Hukawa, Ewa, Oahu, Hawaii.

Beginning at the North corner of this parcel of land, the coordinates of said point of beginning referred to North American Datum 1983 Zone 5103 (U.S. Survey Feet) being 72,750.97 feet North and 1,856,075.00 feet East, thence running by azimuths measured clockwise from true South:

[illegible]

Being portions of the lands conveyed by the followings:

DEED

Dated: May 5, 1902  
Recorded: Book 234, Page 495  
Grantee: THE UNITED STATES OF AMERICA

DEED

Dated: September 7, 1915  
Recorded: Book 435, Page 283  
Grantee: THE UNITED STATES OF AMERICA

DEED

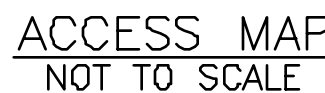
Dated: January 17, 1918  
Recorded: Book 498, Page 455  
Grantee: THE UNITED STATES OF AMERICA

EXECUTIVE ORDER NO. 7215

Dated: October 28, 1935  
Transferred to: THE NAVY DEPARTMENT



- PPV NORTH  
18.178 Ac.  
791,822 Sq. Ft.



Sheet  
reference  
number:  
—  
Sheet 3 of 3

Sheet  
reference  
number:  
—  
Sheet 3 of 3



EXHIBIT 3  
SITE TOPOGRAPHICAL MAP



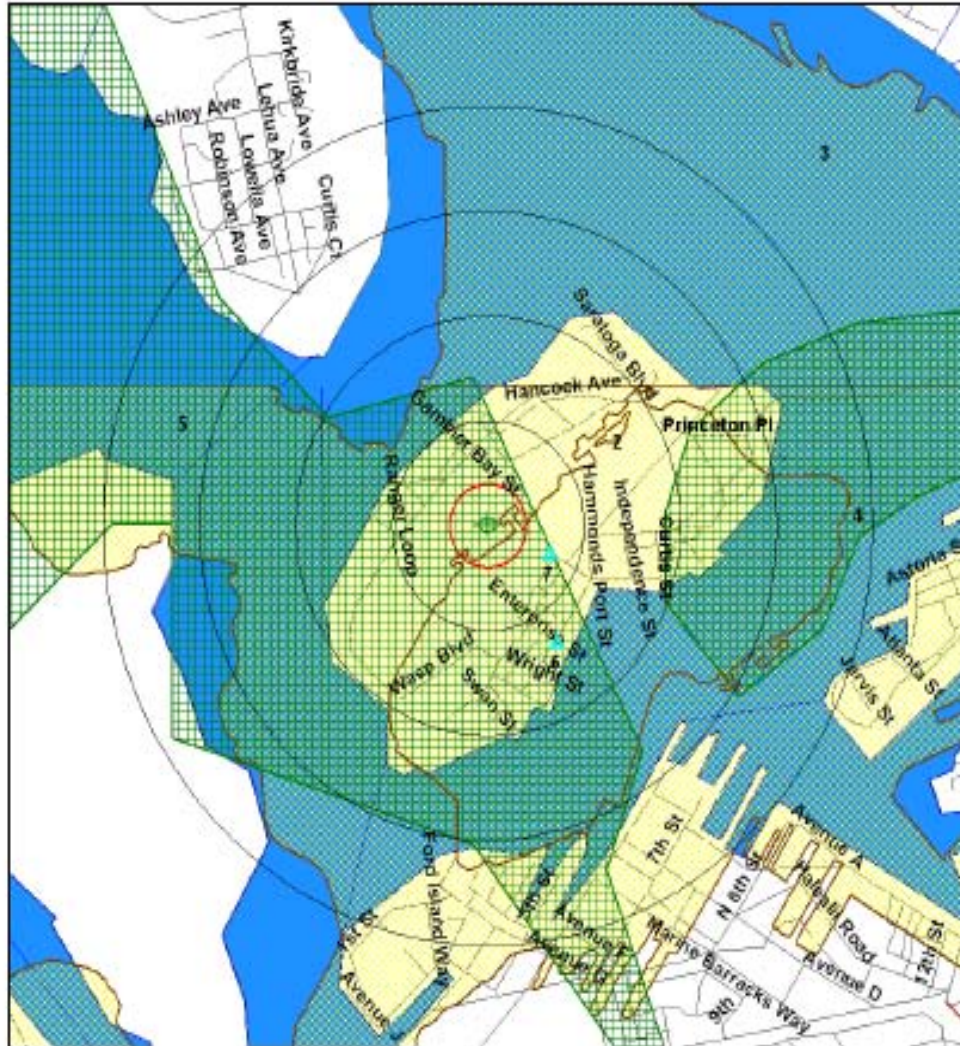
EXHIBIT 4  
ENVIRONMENTAL DATABASE SITES WITHIN ASTM SEARCH  
DISTANCE



# Environmental FirstSearch 1 Mile Radius Single Map:



, PEARL HARBOR HI 96860



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965)

Identified Site, Multiple Sites, Exception

NPL, Brownfield, Solid Waste Landfill (SWL), or Hazardous Waste

Railroad

Black Ring Represents 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



Exhibit 4  
Environmental Database Sites within  
ASTM Search Distance



## Appendix A

### ENVIRONMENTAL DATABASE REPORT



**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

**TARGET PROPERTY:**

**FORD ISLAND NAVAL FAMILY HOUSING**

**PEARL HARBOR HI 96860**

Job Number: 904283

**PREPARED FOR:**

Parsons

100 West Walnut Street

Pasadena, CA 91124

03-10-06



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# Environmental FirstSearch Search Summary Report

**Target Site:** FORD ISLAND NAVAL FAMILY HOUSING  
PEARL HARBOR HI 96860

## FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	01-13-06	1.00	0	0	0	0	0	0	0
CERCLIS	Y	01-13-06	0.75	0	0	0	0	0	0	0
NFRAP	Y	01-13-06	0.75	0	0	0	0	0	0	0
RCRA TSD	Y	02-06-06	0.75	0	0	0	0	0	0	0
RCRA COR	Y	02-06-06	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	02-06-06	0.75	0	0	0	0	0	0	0
RCRA NLR	Y	02-06-06	0.75	0	0	0	0	0	0	0
ERNS	Y	12-31-05	0.75	0	0	0	0	0	1	1
NPDES	Y	10-14-05	0.75	0	0	0	0	0	0	0
FINDS	Y	09-12-05	0.75	0	0	0	0	0	0	0
TRIS	Y	12-01-05	0.75	0	0	0	0	0	0	0
State Sites	Y	NA	1.00	0	0	0	0	0	0	0
Spills-1990	N	NA	0.75	-	-	-	-	-	-	-
Spills-1980	Y	NA	0.75	0	0	0	0	0	0	0
SWL	Y	NA	0.75	0	0	0	0	0	0	0
Permits	Y	NA	0.75	0	0	0	0	0	0	0
Other	Y	NA	0.75	0	0	0	0	0	0	0
REG UST/AST	Y	08-01-05	0.75	0	0	0	0	0	0	0
Leaking UST	Y	08-01-05	0.75	0	0	0	0	0	0	0
State Wells	Y	NA	0.75	0	0	0	0	0	0	0
Aquifers	Y	NA	0.75	0	0	0	0	0	0	0
ACEC	Y	NA	0.75	0	0	0	0	0	0	0
Wetlands	Y	NA	0.75	1	0	0	2	5	0	8
Floodplains	Y	NA	0.75	0	0	0	0	0	0	0
Nuclear Permits	Y	NA	0.75	0	0	0	0	0	0	0
Historic/Landmark	Y	11-17-05	0.75	0	0	0	0	0	0	0
Federal Land Use	Y	01-27-05	0.75	1	0	0	1	0	0	2
Federal Wells	Y	05-19-03	0.75	0	0	1	1	5	0	7
Releases(Air/Water)	Y	12-31-05	0.75	0	0	0	0	0	0	0
HMIRS	Y	03-15-05	0.75	0	0	0	0	0	0	0
NCDB	Y	08-30-04	0.75	0	0	0	0	0	0	0
PADS	Y	12-27-05	0.75	0	0	0	0	0	0	0
Federal Other	Y	05-13-05	0.75	0	0	0	0	0	0	0
Brownfield	Y	10-18-05	0.75	0	0	0	0	0	0	0
Towers	Y	01-15-04	0.75	0	0	0	1	2	0	3
Soils	Y	03-18-97	0.75	0	0	0	0	0	0	0
Receptors	Y	NA	0.75	0	0	0	0	0	0	0
FIMAP	N	07-14-05	0.15	-	-	-	-	-	-	-
- TOTALS -				2	0	1	5	12	1	21

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 03-10-06  
**Requestor Name:** (b) (6)  
**Standard:** ASTM

**Search Type:** COORD  
**Job Number:** 904283

**Filtered Report**

**TARGET ADDRESS:** FORD ISLAND NAVAL FAMILY HOUSING  
PEARL HARBOR HI 96860

***Demographics***

<b>Sites:</b> 21	<b>Non-Geocoded:</b> 1	<b>Population:</b> NA
<b>Radon:</b> NA		

***Site Location***

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
<b>Longitude:</b>	-157.965	-157:57:54	<b>Easting:</b>	607307.199
<b>Latitude:</b>	21.367	21:22:1	<b>Northing:</b>	2362979.463
			<b>Zone:</b>	4

***Comment***

**Comment:**RERUN

***Additional Requests/Services***

**Adjacent ZIP Codes:** 0 Mile(s)

**Services:**

ZIP Code	City Name	ST	Dist/Dir	Sel

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

# *Environmental FirstSearch*

## *Sites Summary Report*

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**TOTAL:** 21      **GEOCODED:** 20      **NON GEOCODED:** 1      **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
16	ERNS	489433/UNKNOWN (NRC)	AVE A AND 6TH STREET NEAR B PEARL HARBOR HI 96860	NON GC	
1	FEDWELLS	3-2257-05 W224 FORD FW-HI-1426/USGS GROUNDWATER INV	HI	0.17 SE	14
2	FEDWELLS	3-2157-03 W223 FORD FW-HI-1411/USGS GROUNDWATER INV	HI	0.33 SE	11
3	FEDWELLS	3-2257-04 W222 FORD FW-HI-1428/USGS GROUNDWATER INV	HI	0.54 SE	13
4	FEDWELLS	3-2257-03 W221 FORD FW-HI-1430/USGS GROUNDWATER INV	HI	0.57 SE	12
5	FEDWELLS	3-2258-09 W218-2 PRC FW-HI-1511/USGS GROUNDWATER INV	HI	0.70 NW	15
6	FEDWELLS	3-2258.02 FW-HI-1422/USGS GROUNDWATER INV	HI	0.70 SW	17
7	FEDWELLS	3-2258.01 FW-HI-1413/USGS GROUNDWATER INV	HI	0.71 SW	16
8	LANDUSE	NAVY DOD PEARL HARBOR NAVAL STATIO 45975	HI	0.00 --	10
8	LANDUSE	NAVY DOD FORD ISLAND NAVAL STATION 45980	HI	0.46 -E	9
9	TOWERS	12-0335/DOF	HONOLULU HI	0.37 SE	19
10	TOWERS	NEXTEL COMMUNICATIONS HAWAII 00-AWP-0766-OE/ASR-DE	FORD ISLAND HI	0.71 SE	18
11	TOWERS	12-0124/DOF	FORD ISLAND HI	0.71 SE	18
12	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1666/E1OWL	HI	0.00 --	1
12	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-2142/E1OWL	HI	0.33 N-	8
13	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1718/E1OWL	HI	0.34 NE	3
13	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1669/E1OWL	HI	0.63 NW	2
14	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-2086/E1OWL	HI	0.63 NW	7
14	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1729/E2FO3P	HI	0.74 SW	4
15	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1756/PEM1CD	HI	0.75 SW	6
15	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1750/E1OWL	HI	0.75 SW	5

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 14      **DIST/DIR:** 0.17 SE      **MAP ID:** 14

<b>NAME:</b> 3-2257-05 W224 FORD	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1426
HONOLULU COUNTY HI	<b>ID2:</b> 212209157575501
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212209157575501
<b>SITE NAME:</b>	3-2257-05 W224 FORD
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	12.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	2
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	
<b>AGENCY USE OF SITE :</b>	INACTIVE OR DISCONTINUED DATA-COLLECTION SITE
<b>DATE OF FIRST CONSTRUCTION:</b>	
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	391
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 11      **DIST/DIR:** 0.33 SE      **MAP ID:** 11

<b>NAME:</b> 3-2157-03 W223 FORD	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1411
HONOLULU COUNTY HI	<b>ID2:</b> 212158157575401
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212158157575401
<b>SITE NAME:</b>	3-2157-03 W223 FORD
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	20.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	5
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	
<b>AGENCY USE OF SITE :</b>	INACTIVE OR DISCONTINUED DATA-COLLECTION SITE
<b>DATE OF FIRST CONSTRUCTION:</b>	
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	441
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 13      **DIST/DIR:** 0.54 SE      **MAP ID:** 13

<b>NAME:</b> 3-2257-04 W222 FORD	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1428
HONOLULU COUNTY HI	<b>ID2:</b> 212210157573401
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212210157573401
<b>SITE NAME:</b>	3-2257-04 W222 FORD
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	18.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	2
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	
<b>AGENCY USE OF SITE :</b>	INACTIVE OR DISCONTINUED DATA-COLLECTION SITE
<b>DATE OF FIRST CONSTRUCTION:</b>	
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	484
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 12      **DIST/DIR:** 0.57 SE      **MAP ID:** 12

<b>NAME:</b> 3-2257-03 W221 FORD	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1430
HONOLULU COUNTY HI	<b>ID2:</b> 212212157573201
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212212157573201
<b>SITE NAME:</b>	3-2257-03 W221 FORD
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	18.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	2
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	
<b>AGENCY USE OF SITE :</b>	INACTIVE OR DISCONTINUED DATA-COLLECTION SITE
<b>DATE OF FIRST CONSTRUCTION:</b>	
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	503
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 15      **DIST/DIR:** 0.70 NW      **MAP ID:** 15

<b>NAME:</b> 3-2258-09 W218-2 PRC	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1511
HONOLULU COUNTY HI	<b>ID2:</b> 212235157583501
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212235157583501
<b>SITE NAME:</b>	3-2258-09 W218-2 PRC
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	09 WAIPAHU
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	11.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	2
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	
<b>AGENCY USE OF SITE :</b>	INACTIVE OR DISCONTINUED DATA-COLLECTION SITE
<b>DATE OF FIRST CONSTRUCTION:</b>	19390101
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	158
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 17      **DIST/DIR:** 0.70 SW      **MAP ID:** 17

<b>NAME:</b> 3-2258.02	<b>REV:</b> 5/19/03
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1422
HONOLULU COUNTY HI	<b>ID2:</b> 212205157584201
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212205157584201
<b>SITE NAME:</b>	3-2258.02
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	10.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	5
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	FLAT SURFACE
<b>AGENCY USE OF SITE :</b>	INVENTORY DATA SITE ONLY
<b>DATE OF FIRST CONSTRUCTION:</b>	19721120
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	U
<b>OTHER GW FILES:</b>	YYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	X
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	
<b>HOLE DEPTH:</b>	39.5
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**FEDERAL WELLS SITE**

**SEARCH ID:** 16      **DIST/DIR:** 0.71 SW      **MAP ID:** 16

<b>NAME:</b> 3-2258.01 <b>ADDRESS:</b> HI HONOLULU COUNTY HI <b>CONTACT:</b>	<b>REV:</b> 5/19/03 <b>ID1:</b> FW-HI-1413 <b>ID2:</b> 212202157584201 <b>STATUS:</b> USGS GROUNDWATER INV <b>PHONE:</b>
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**SITE INFORMATION**

<b>AGENCY:</b>	USGS
<b>SITE ID:</b>	212202157584201
<b>SITE NAME:</b>	3-2258.01
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU COUNTY HI
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	19.40
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	.5
<b>ALTITUDE DATUM:</b>	NGVD29
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>DRAINAGE BASIN :</b>	
<b>TOPOGRAPHIC SETTING :</b>	FLAT SURFACE
<b>AGENCY USE OF SITE :</b>	INVENTORY DATA SITE ONLY
<b>DATE OF FIRST CONSTRUCTION:</b>	19650101
<b>DATE SITE ESTABLISHED:</b>	
<b>DRAINAGE AREA:</b>	
<b>CONTRIBUTING DRAINAGE AREA:</b>	
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>DATA RELIABILITY CODE :</b>	M
<b>OTHER GW FILES:</b>	NYNNNNNN
<b>TYPE OF GROUNDWATER SITE:</b>	D
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	
<b>HOLE DEPTH:</b>	9.0
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING **JOB:** 904283  
PEARL HARBOR HI 96860 RERUN

FEDERAL LAND USE			
<b>SEARCH ID:</b>	9	<b>DIST/DIR:</b>	0.46 -E
		<b>MAP ID:</b>	9
<b>NAME:</b>	NAVY DOD FORD ISLAND NAVAL STATION ANNEX	<b>REV:</b>	1/27/05
<b>ADDRESS:</b>	HI	<b>ID1:</b>	45980
		<b>ID2:</b>	
<b>CONTACT:</b>		<b>STATUS:</b>	
		<b>PHONE:</b>	
<b><u>FEDERAL LAND INFORMATION</u></b>			
<b>NAME:</b>	FORD ISLAND NAVAL STATION ANNEX		
<b>FEATURE:</b>	NAVY DOD		
<b>ADMINISTERING AGENCY:</b>	DOD		
<b>STATE FIPS:</b>	15		
<b>AREA:</b>	0		
<b>PERIMETER:</b>	0.044		

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**TOWERS**

<b>SEARCH ID:</b> 20	<b>DIST/DIR:</b> 0.37 SE	<b>MAP ID:</b> 19
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<b>NAME:</b> <b>ADDRESS:</b> HONOLULU HI	<b>REV:</b> 01/04/04 <b>ID1:</b> 12-0335 <b>ID2:</b> <b>STATUS:</b> DOF <b>PHONE:</b>
<b>CONTACT:</b>	

**AA S DIGITAL OBSTACLE FILE**

The Digital Obstacle File describes all obstacles of interest to aviation users in the U.S. It contains obstruction data fo those man made objects which affect domestic aeronautical charting products.

<b>VERIFICATION STATUS:</b>	UNVERIFIED
<b>OBSTACLE TYPE:</b>	CRANE
<b>FREQUENCY:</b>	
<b>ABOVE GROUND LEVEL HEIGHT:</b>	0220
<b>ABOVE MEAN SEA LEVEL HEIGHT:</b>	00235
<b>STROBE INDICATOR:</b>	
<b>HORIZONTAL ACCURACY:</b>	
<b>VERTICAL ACCURACY:</b>	
<b>PAINTED OR MARKED?:</b>	
b1 FAA STUDY NUMBER:	99LR0000

***Environmental FirstSearch***  
***Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**TOWERS**

**SEARCH ID:** 18      **DIST/DIR:** 0.71 SE      **MAP ID:** 18

<b>NAME:</b> NEXTEL COMMUNICATIONS HAWAII	<b>REV:</b> 01/04/04
<b>ADDRESS:</b> FORD ISLAND HI	<b>ID1:</b> 00-AWP-0766-OE
	<b>ID2:</b>
	<b>STATUS:</b> ASR-DE
<b>CONTACT:</b>	<b>PHONE:</b>

**ANTENNA STRUCTURE REGISTRATION - FAA DETERMINATION RECORDS**

The Antenna Structure Registration database contains antenna structures that generally are more than 60.96 meters(200 feet) in height or are located near an airport. This record does not appear in the ASR registration records but does appear in the FAA Determination Records for the ASR database. Records in the FAA Determination Database may not have been built.

<b>FAA DATE ISSUED:</b>	5/4/2000
<b>FAA DATE KEYED:</b>	
<b>FAA DATE EXPIRATION:</b>	11/04/2001
<b>DATE ACTION:</b>	5/11/2000
<b>FAA FINAL DATE:</b>	
<b>GROUND ELEVATION:</b>	3
<b>OVERALL HEIGHT OF STRUCTURE:</b>	76.2
<b>OVERALL HEIGHT AMSL:</b>	79.2
<b>FAA STUDY NUMBER:</b>	00-AWP-0766-OE
<b>FAA CIRCULAR NUMBER:</b>	70/7460-1

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**TOWERS**

**SEARCH ID:** 19      **DIST/DIR:** 0.71 SE      **MAP ID:** 18

<b>NAME:</b> <b>ADDRESS:</b> FORD ISLAND HI	<b>REV:</b> 01/04/04 <b>ID1:</b> 12-0124 <b>ID2:</b> <b>STATUS:</b> DOF <b>PHONE:</b>
<b>CONTACT:</b>	

**AA S DIGITAL OBSTACLE FILE**

The Digital Obstacle File describes all obstacles of interest to aviation users in the U.S. It contains obstruction data fo those man made objects which affect domestic aeronautical charting products.

<b>VERIFICATION STATUS:</b>	VERIFIED
<b>OBSTACLE TYPE:</b>	TOWER
<b>FREQUENCY:</b>	
<b>ABOVE GROUND LEVEL HEIGHT:</b>	0212
<b>ABOVE MEAN SEA LEVEL HEIGHT:</b>	00225
<b>STROBE INDICATOR:</b>	RED LIGHTING
<b>HORIZONTAL ACCURACY:</b>	+500
<b>VERTICAL ACCURACY:</b>	+125
<b>PAINTED OR MARKED?:</b>	Y
b1 FAA STUDY NUMBER:	00WP0766

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**WETLANDS**

**SEARCH ID:** 1      **DIST/DIR:** 0.00 --      **MAP ID:** 1

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-1666
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E1OWL
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	12849569.07
<b>PERIMETER:</b>	67262.89
<b>WETC:</b>	6
<b>WETC_ID:</b>	22
<b>ATTRIBUTE:</b>	E1OWL

**WETLANDS**

**SEARCH ID:** 8      **DIST/DIR:** 0.33 N-      **MAP ID:** 8

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-2142
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E1OWL
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	4034280.04
<b>PERIMETER:</b>	13020.79
<b>WETC:</b>	45
<b>WETC_ID:</b>	50
<b>ATTRIBUTE:</b>	E1OWL

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**WETLANDS**

**SEARCH ID:** 3      **DIST/DIR:** 0.34 NE      **MAP ID:** 3

**NAME:** NATIONAL WETLANDS INVENTORY  
**ADDRESS:** HI  
**CONTACT:**

**REV:** 2/27/02  
**ID1:** NWI-HI-1718  
**ID2:**  
**STATUS:** E1OWL  
**PHONE:**

**SITE INFORMATION**

**AREA:** 6122.49  
**PERIMETER:** 428.969  
**WETC:** 20  
**WETC\_ID:** 34  
**ATTRIBUTE:** E1OWL

**WETLANDS**

**SEARCH ID:** 2      **DIST/DIR:** 0.63 NW      **MAP ID:** 2

**NAME:** NATIONAL WETLANDS INVENTORY  
**ADDRESS:** HI  
**CONTACT:**

**REV:** 2/27/02  
**ID1:** NWI-HI-1669  
**ID2:**  
**STATUS:** E1OWL  
**PHONE:**

**SITE INFORMATION**

**AREA:** 114.73  
**PERIMETER:** 49.2876  
**WETC:** 9  
**WETC\_ID:** 36  
**ATTRIBUTE:** E1OWL

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**WETLANDS**

**SEARCH ID:** 7      **DIST/DIR:** 0.63 NW      **MAP ID:** 7

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-2086
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E1OWL
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	2014598.41
<b>PERIMETER:</b>	7610.77
<b>WETC:</b>	52
<b>WETC_ID:</b>	22
<b>ATTRIBUTE:</b>	E1OWL

**WETLANDS**

**SEARCH ID:** 4      **DIST/DIR:** 0.74 SW      **MAP ID:** 4

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-1729
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E2FO3P
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	11427.38
<b>PERIMETER:</b>	758.203
<b>WETC:</b>	29
<b>WETC_ID:</b>	39
<b>ATTRIBUTE:</b>	E2FO3P

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**WETLANDS**

**SEARCH ID:** 6      **DIST/DIR:** 0.75 SW      **MAP ID:** 6

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-1756
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> PEM1CD
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	9305.99
<b>PERIMETER:</b>	400.687
<b>WETC:</b>	38
<b>WETC_ID:</b>	43
<b>ATTRIBUTE:</b>	PEM1Cd

**WETLANDS**

**SEARCH ID:** 5      **DIST/DIR:** 0.75 SW      **MAP ID:** 5

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-1750
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E1OWL
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	1420.96
<b>PERIMETER:</b>	143.416
<b>WETC:</b>	32
<b>WETC_ID:</b>	40
<b>ATTRIBUTE:</b>	E1OWL

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

**EMERGENCY RESPONSE NOTIFICATION SITE**

**SEARCH ID:** 21      **DIST/DIR:** NON GC      **MAP ID:**

**NAME:**      **REV:** 4/26/96  
**ADDRESS:** AVE A AND 6TH STREET NEAR BLDG #92      **ID1:** 489433  
PEARL HARBOR HI 96860      **ID2:**  
**CONTACT:**      **STATUS:** UNKNOWN (NRC)  
      **PHONE:**

**SPILL INFORMATION**

**DATE OF SPILL:** 4/26/1996      **TIME OF SPILL:** 1500

**PRODUCT RELEASED (1):** MERCURY  
**QUANTITY (1):** 4  
**UNITS (1):** LBS

**PRODUCT RELEASED (2):**  
**QUANTITY (2):**  
**UNITS (2):**

**PRODUCT RELEASED (3):**  
**QUANTITY (3):**  
**UNITS (3):**

**MEDIUM/MEDIA AFFECTED**

**AIR:** NO      **GROUNDWATER:** NO  
**LAND:** YES      **FIXED FACILITY:** NO  
**WATER:** NO      **OTHER:** NO  
**WATERBODY AFFECTED BY RELEASE:** ASPHALT

**CAUSE OF RELEASE**

**DUMPING:** NO      **EQUIPMENT FAILURE:** NO  
**NATURAL PHENOMENON:** NO      **OPERATOR ERROR:** NO  
**OTHER CAUSE:** NO      **TRANSP. ACCIDENT:** NO  
**UNKNOWN:** NO

**ACTIONS TAKEN:** FOUND ON ASPHALT. AREA ROPED OFF AND MATERIAL VACUUMED UP.

**RELEASE DETECTION:** UNKNOWN / FOUND SPILL ALONGSIDE ROAD

**MISC. NOTES:** CLEANUP IS STILL IN PROGRESS, CONSIDERING TAKING UP ASPHALT. WILL NOTIFY:STATE DEPT OF HEALTH

**DISCHARGER INFORMATION**

**DISCHARGER ID:** 489433      **DUN & BRADSTREET #:**  
**TYPE OF DISCHARGER:**  
**NAME OF DISCHARGER:**  
**ADDRESS:**

## **Environmental FirstSearch Database Descriptions**

**NPL:** *EPA* NATIONAL PRIORITY LIST - Database of confirmed, proposed or deleted Superfund sites.

**CERCLIS:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM - Database of current and potential Superfund sites currently or previously under investigation.

**NFRAP:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

**RCRA TSD:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of facilities licensed to store, treat and dispose of hazardous waste materials.

**RCRA COR:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of RCRA facilities with reported violations and subject to corrective actions.

**RCRA GEN:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of facilities that generate or transport hazardous waste or meet other RCRA requirements. LGN - Large Quantity Generators SGN - Small Quantity Generators VGN – Conditionally Exempt Generator. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

**RCRA NLR:** *EPA* RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of facilities not currently classified by the EPA but are still included in the RCRIS database. Reasons for non classification: Failure to report in a timely matter. No longer in business. No longer in business at the listed address. No longer generating hazardous waste materials in quantities which require reporting.

**ERNS:** *EPA/NRC* EMERGENCY RESPONSE NOTIFICATION SYSTEM - Database of emergency response actions. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**NPDES:** *EPA* THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

**FINDS:** *EPA* FACILITY INDEX SYSTEM(FINDS)/FACILITY REGISTRY SYSTEM(FRS) - The index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. A Facility Registry System site has an FRS in the status field.

**TRIS:** *EPA* TOXIC RELEASE INVENTORY SYSTEM - Database of all facilities that have had or may be prone to toxic material releases.

**REG UST/AST:** *HI DOH* UNDERGROUND STORAGE TANKS- The Hawaii Department of Health's inventory of underground storage tanks.

**LEAKING UST:** *HI DOH* LEAKING UNDERGROUND STORAGE TANKS-The Hawaii Department of Health's inventory of sites with leaking underground storage tanks.

**WETLANDS:** *US FWS* NATIONAL WETLANDS INVENTORY (NWI) - database of information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This data is available for select areas of the United States.

**FLOODPLAINS:** *FEMA* FLOODPLAINS – database of 100 year and 500 year flood zone boundaries for select counties in the United States

**RECEPTORS:** *US DOC* SENSITIVE RECEPTORS - 2002 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System) database of schools and hospitals. List of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

**NUCLEAR PERMITS:** *EPA/NRC* PERMITTED NUCLEAR FACILITIES THE RADINFO DATABASE - Database of basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

**HISTORIC/LANDMARK:** *NPS* NATIONAL REGISTRY OF HISTORIC PLACES DATABASE - The nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**FEDERAL LAND USE:** *USGS/EPA* FEDERAL LANDS OF THE UNITED STATES - Database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the U.S. Department of Agriculture Forest Service, the Department of Defense, the U.S. Fish and Wildlife Service, the National Park Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included. Descriptive information includes the name and type of the Federal land and the

administering agency.INDIAN LANDS OF THE UNITED STATES - Areas administered by the Bureau of Indian Affairs shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.ENDANGERED SPECIES PROTECTION PROGRAM DATABASE – List of the Endangered Species by county and the species status.

**FEDERAL WELLS:** *USGS* UNITED STATES GROUND-WATER SITES INVENTORY - Database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States.

**RELEASES(AIR/WATER):** *EPA/NRC* AIR AND SURFACE WATER RELEASES - A subset of the ERNSNational Response System database which have impacted only the air or surface water.

**HMIRS:** *US DOT* HAZARDOUS MATERIALS INCIDENT RESPONSE SYSTEM - Database of information regarding materials, packaging, and a description of events for tracked incidents.

**NCDB:** *EPA* NATIONAL COMPLIANCE DATA BASE SYSTEM - Database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

**OTHER:** *EPA* SECTION SEVEN TRACKING SYSTEM (SSTS) – database of registration and production data for facilities which manufacture pesticides.AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS) – database of detailed information pertaining to sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

**TOWERS:** *FAA/ FCC* Tower - database encompasses three sources of information from the Federal Aviation Administration and the Federal Communications Commission. FAA data includes the Digital Obstacle File which contains obstruction data for man made objects that affect domestic aeronautical charting products. FCC data includes the Wireless Telecommunication Bureau's Universal Licensing System which contains the Antenna Structure Database and the Cellular Tower Database. FCC data also includes the Mass Media Bureau's Consolidated Database System which includes engineering data for AM, FM, and Television broadcasting stations.

**SOILS:** *USGS/NRCS* NATIONAL SOILS DATABASE - Database comprised of the State Soil Geographic (STATSGO) data for the conterminous United States, Soil Survey Geographic (SSURGO) and Digital Data Series Bedrock data. These databases contain information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding.

**PADS:** *EPA* DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

## Environmental FirstSearch Database Sources

**NPL:** *EPA* Environmental Protection Agency

*Updated quarterly*

**CERCLIS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**NFRAP:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA COR:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RCRA NLR:** *EPA* Environmental Protection Agency

*Updated quarterly*

**ERNS:** *EPA/NRC* Environmental Protection Agency

*Updated semi-annually*

**NPDES:** *EPA* Environmental Protection Agency

*Updated quarterly*

**FINDS:** *EPA* Environmental Protection Agency

*Updated annually*

**TRIS:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**REG UST/AST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**LEAKING UST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**WETLANDS:** *US FWS* U.S. Fish and Wildlife Service

*Updated when available*

**FLOODPLAINS:** *FEMA* Federal Emergency Management Agency

*Updated when available*

**RECEPTORS:** *US DOC* US Department of Commerce, Census Bureau

*Updated periodically*

**NUCLEAR PERMITS:** *EPA/NRC* Nuclear Regulatory Commission

*Updated periodically*

**HISTORIC/LANDMARK:** *NPS* National Park Service

*Updated annually*

**FEDERAL LAND USE:** *USGS/EPA* U.S. Geological Survey

*Updated annually*

**FEDERAL WELLS:** *USGS* United States Geographical Survey.

*Updated annually*

**RELEASES(AIR/WATER):** *EPA/NRC* Environmental Protection Agency

*Updated semi-annually*

**HMIRS:** *US DOT* US Department of Transportation

*Updated quarterly*

**NCDB:** *EPA* Environmental Protection Agency

*Updated quarterly*

**OTHER:** *EPA* Environmental Protection Agency

*Updated quarterly*

**TOWERS:** *FAA/FCC* Federal Aviation Administration

*Updated*

**SOILS:** *USGS/NRCS* United States Geographical Survey

*Updated annually*

**PADS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**TARGET SITE:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
PEARL HARBOR HI 96860      RERUN

Street Name	Dist/Dir	Street Name	Dist/Dir
Avocet St	0.17 NW		
Bataan Rd	0.17 NW		
Enterprise St	0.22 SE		
Gambier Bay St	0.17 NW		
Hancock Ave	0.22 NE		
Intrepid Ave	0.19 SE		
Kingfisher St	0.19 NW		
Kittyhawk St	0.19 SE		
Lexington Blvd	0.22 SE		
NOCOVERAGE	0.00 --		
Pokomoke St	0.23 SE		
Ranger Loop	0.16 NW		
San Jacinto St	0.23 SW		
Wasp Blvd	0.15 NW		
Yorktown Blvd	0.22 NE		



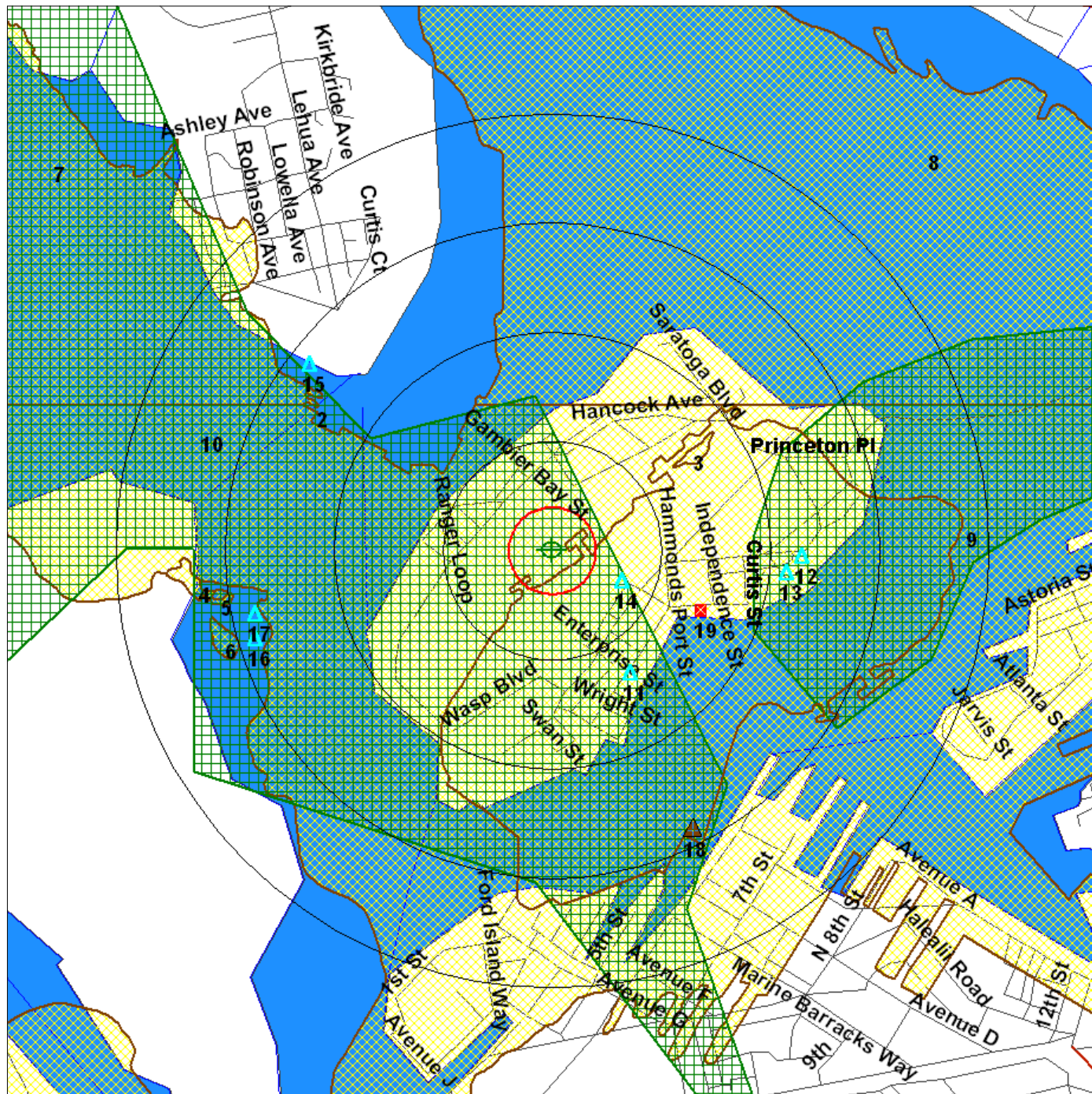
# Environmental FirstSearch

1 Mile Radius

Single Map:



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

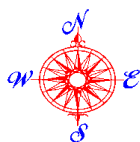
Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



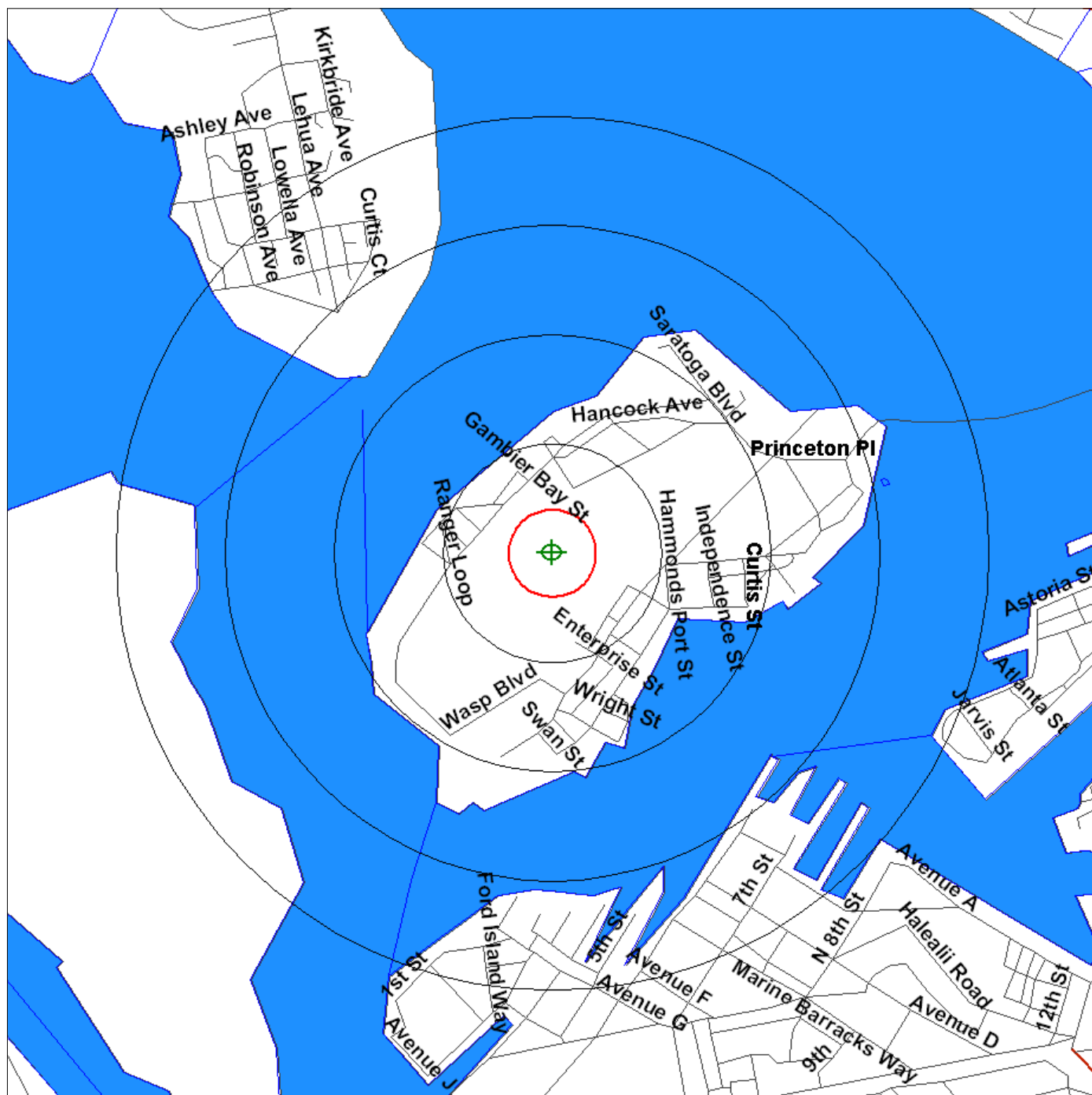


# Environmental FirstSearch

1 Mile Radius  
ASTM: NPL, RCRACOR, STATE



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681

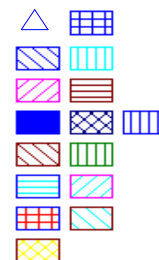


Source: U.S. Census TIGER Files

- Target Site (Latitude: 21.367 Longitude: -157.965) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....
- National Historic Sites and Landmark Sites .....
- Soil Sites .....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



- Public Water Supply, DEP Zone II Boundaries .....
- Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA) .....
- Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...
- Water Bodies, Sole Source Aquifer .....
- Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....
- Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....
- Floodplains: 100 Year, 500 Year .....
- Wetlands .....



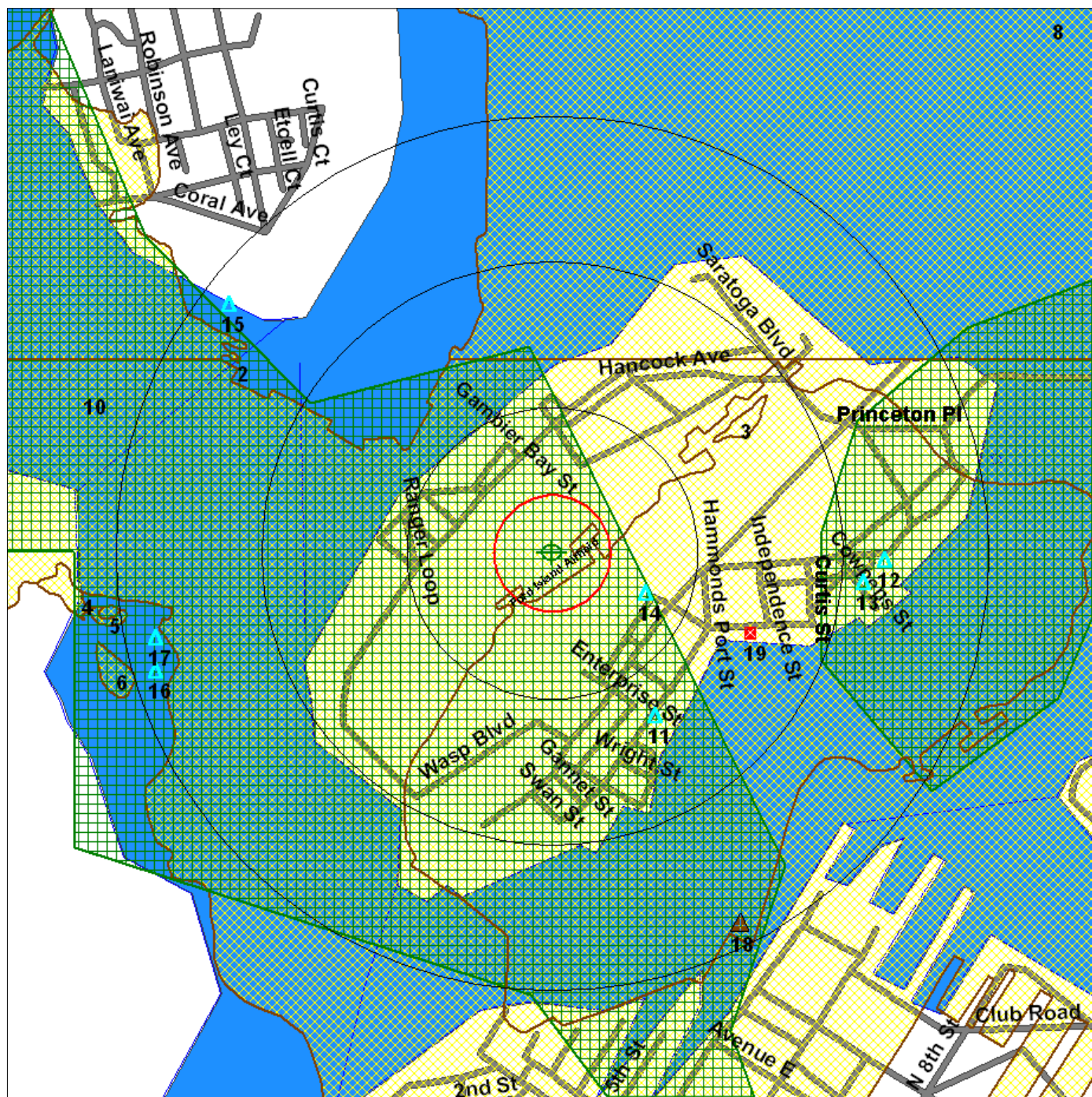


# Environmental FirstSearch

.75 Mile Radius  
ASTM: Multiple Databases



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681

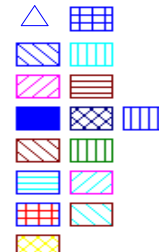


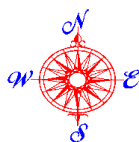
Source: U.S. Census TIGER Files

- Target Site (Latitude: 21.367 Longitude: -157.965) .....
- Identified Site, Multiple Sites, Receptor .....
- NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....
- National Historic Sites and Landmark Sites .....
- Soil Sites .....
- Railroads .....
- Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



- Public Water Supply, DEP Zone II Boundaries .....
- Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA) .....
- Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...
- Water Bodies, Sole Source Aquifer .....
- Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....
- Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....
- Floodplains: 100 Year, 500 Year .....
- Wetlands .....



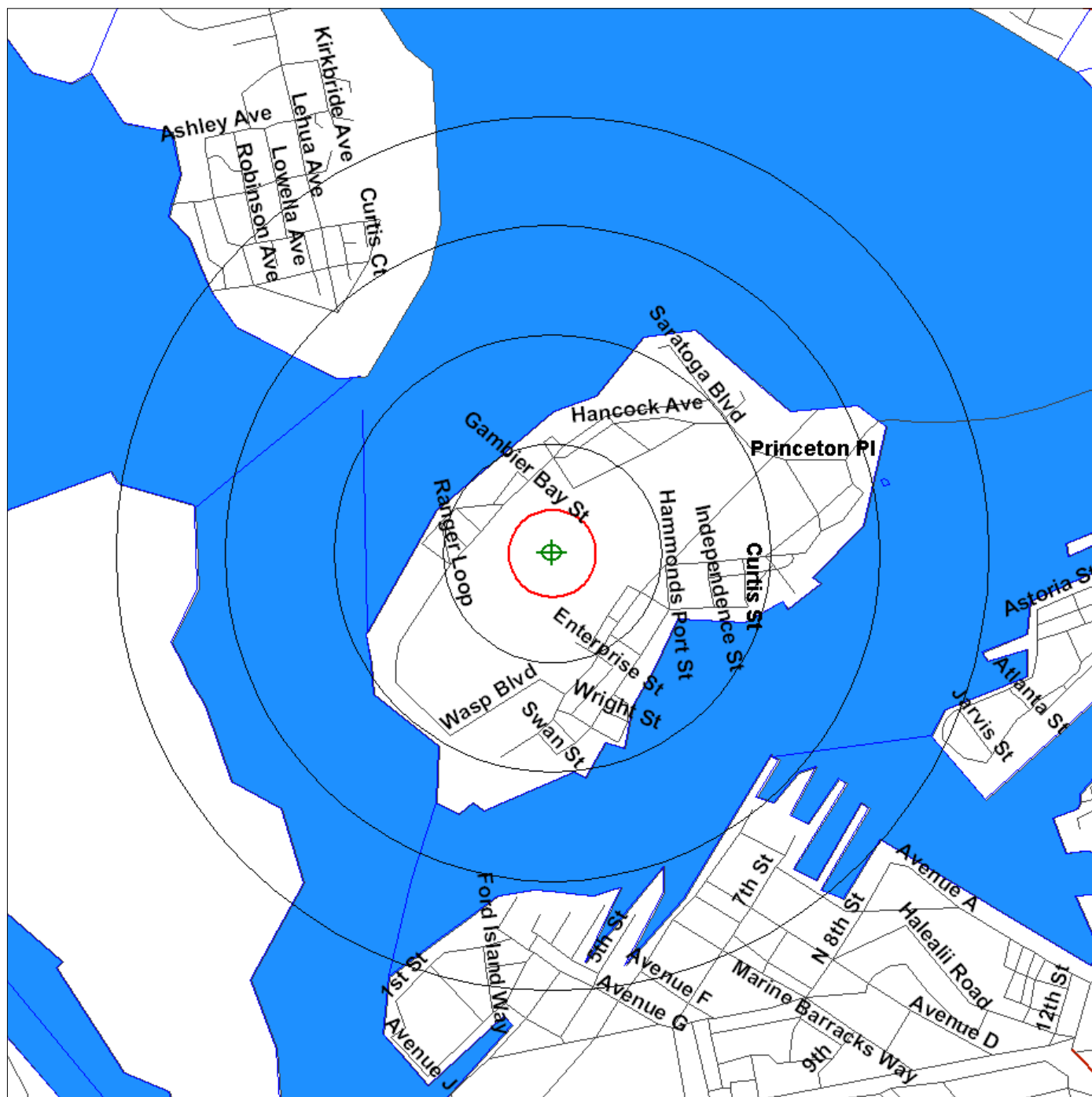


# Environmental FirstSearch

1 Mile Radius  
ASTM Map: NPL, RCRA COR, STATE Sites



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



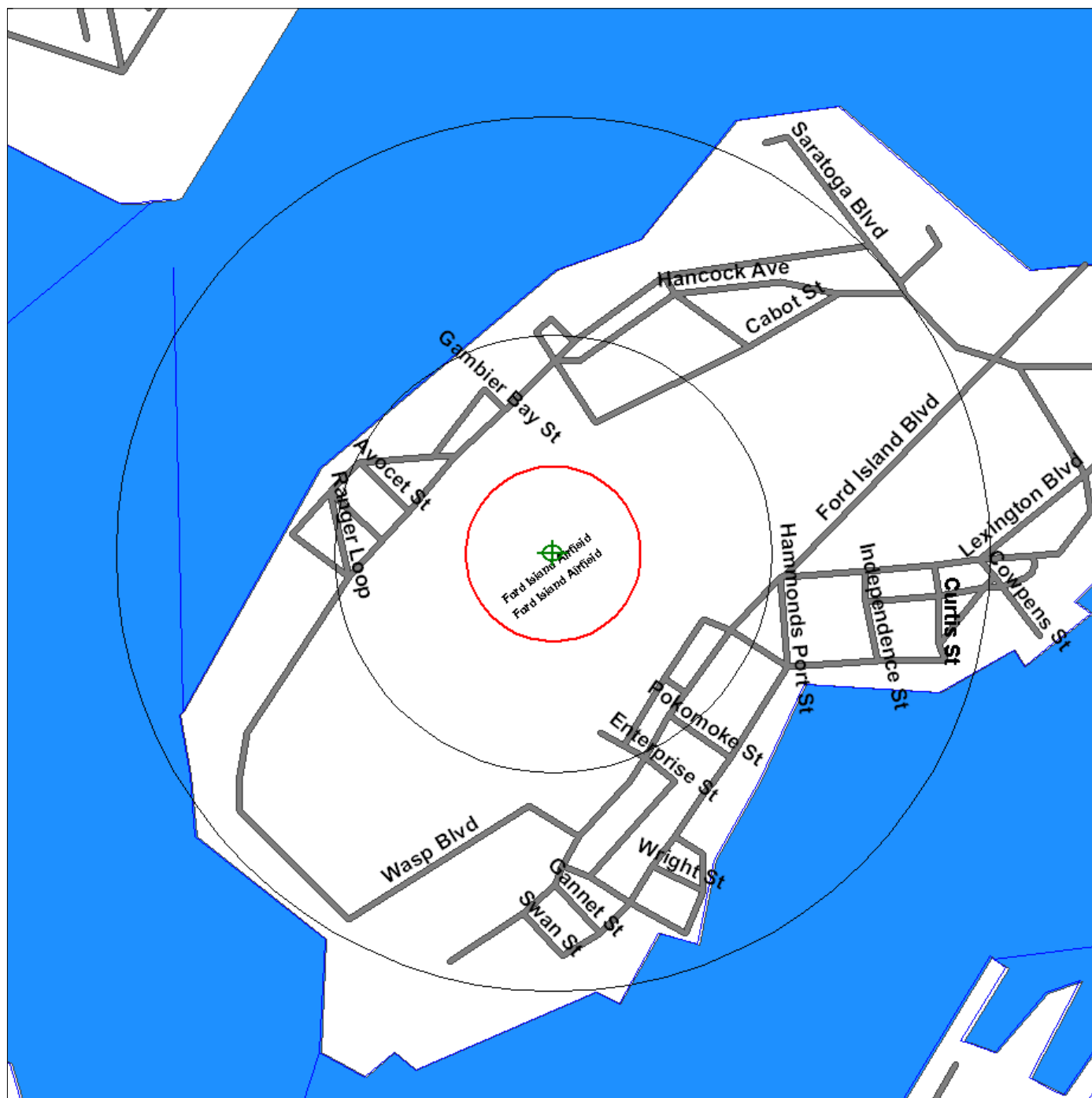


# Environmental FirstSearch

.5 Mile Radius  
ASTM Map: CERCLIS, RCRATSD, LUST, SWL



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



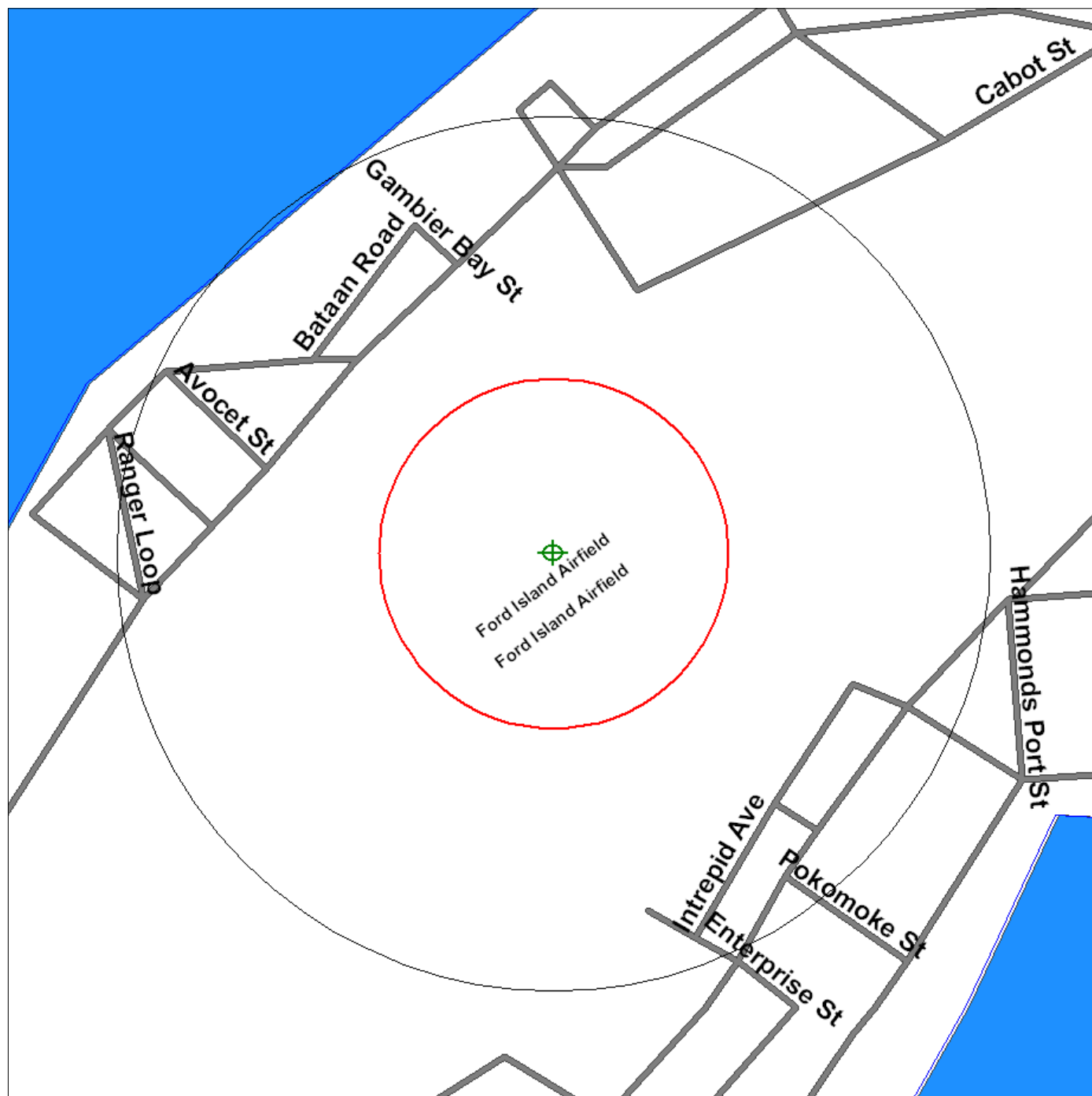


## Environmental FirstSearch

.25 Mile Radius  
ASTM Map: RCAGEN, ERNS, UST



### FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



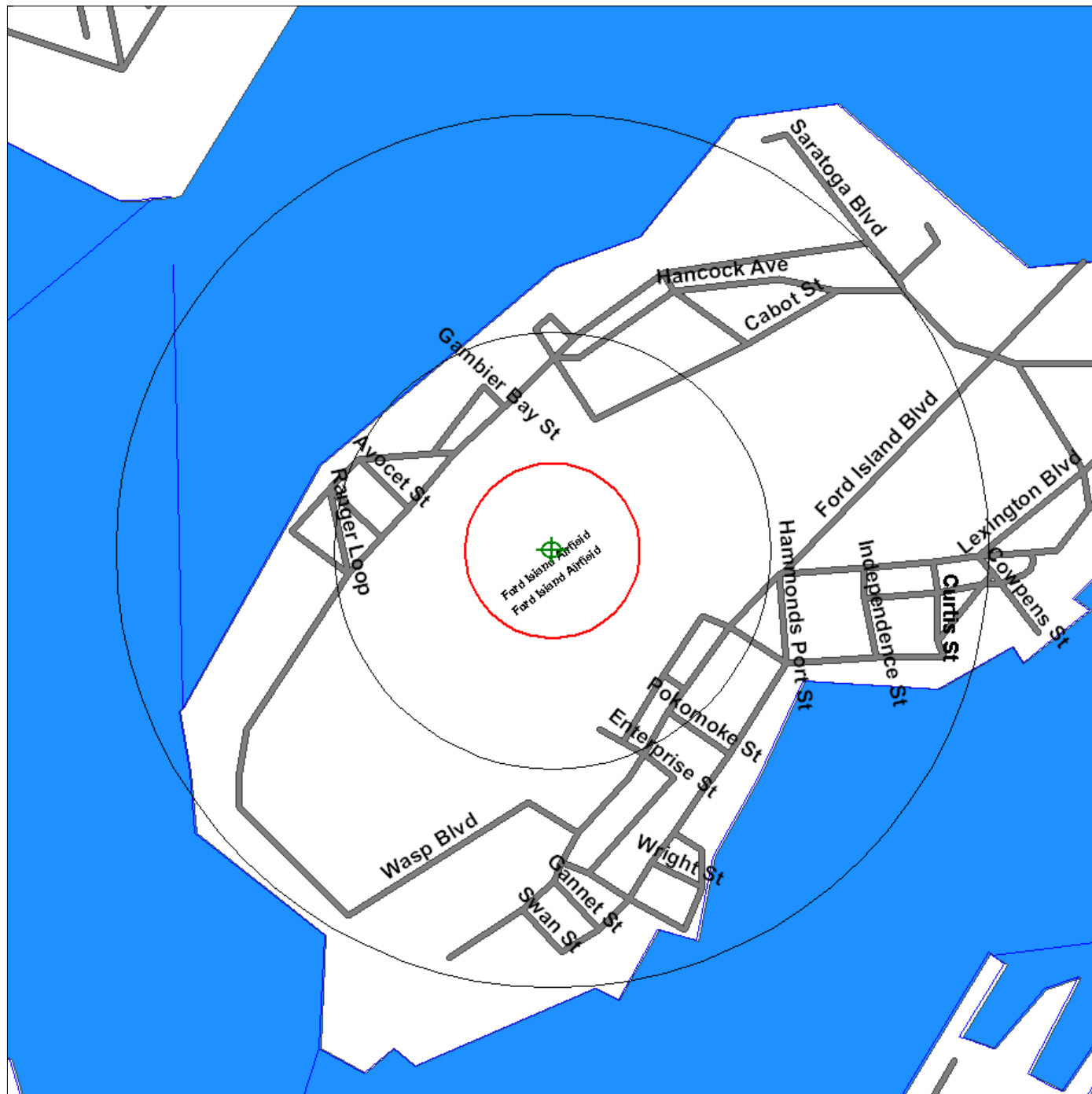


# Environmental FirstSearch

.5 Mile Radius  
ASTM AAI Map: Brownfield



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Brownfield.....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



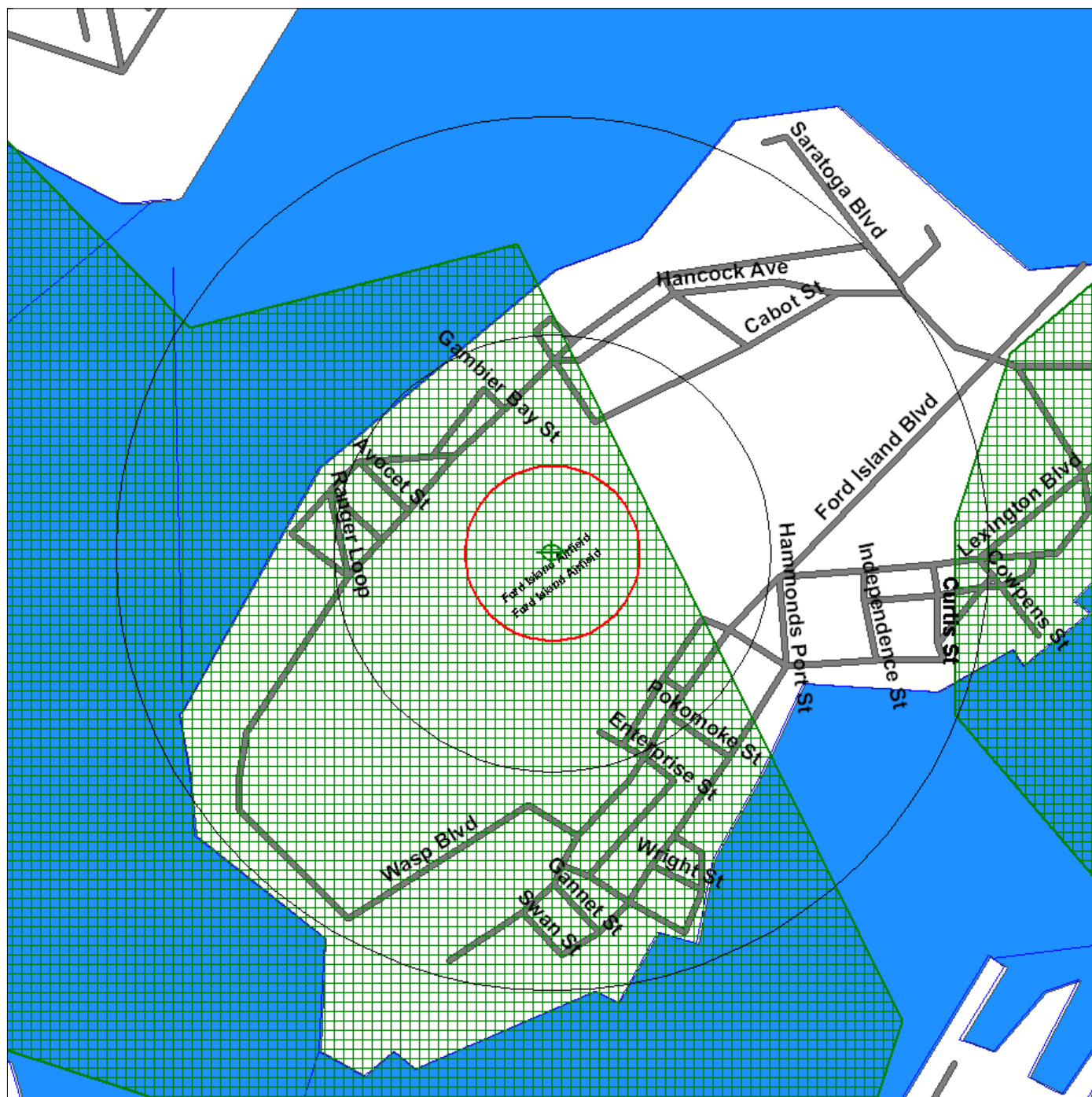


# Environmental FirstSearch

.5 Mile Radius  
ASTM AAI Map: Federal Land Use Sites



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

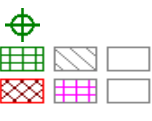
Target Site (Latitude: 21.367 Longitude: -157.965) .....

Fed. Land Use: Wilderness Areas, Wildlife Preserves .....

Fed. Land Use: Amer. Indian Sacred Sites, End. Species' Habitats...

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



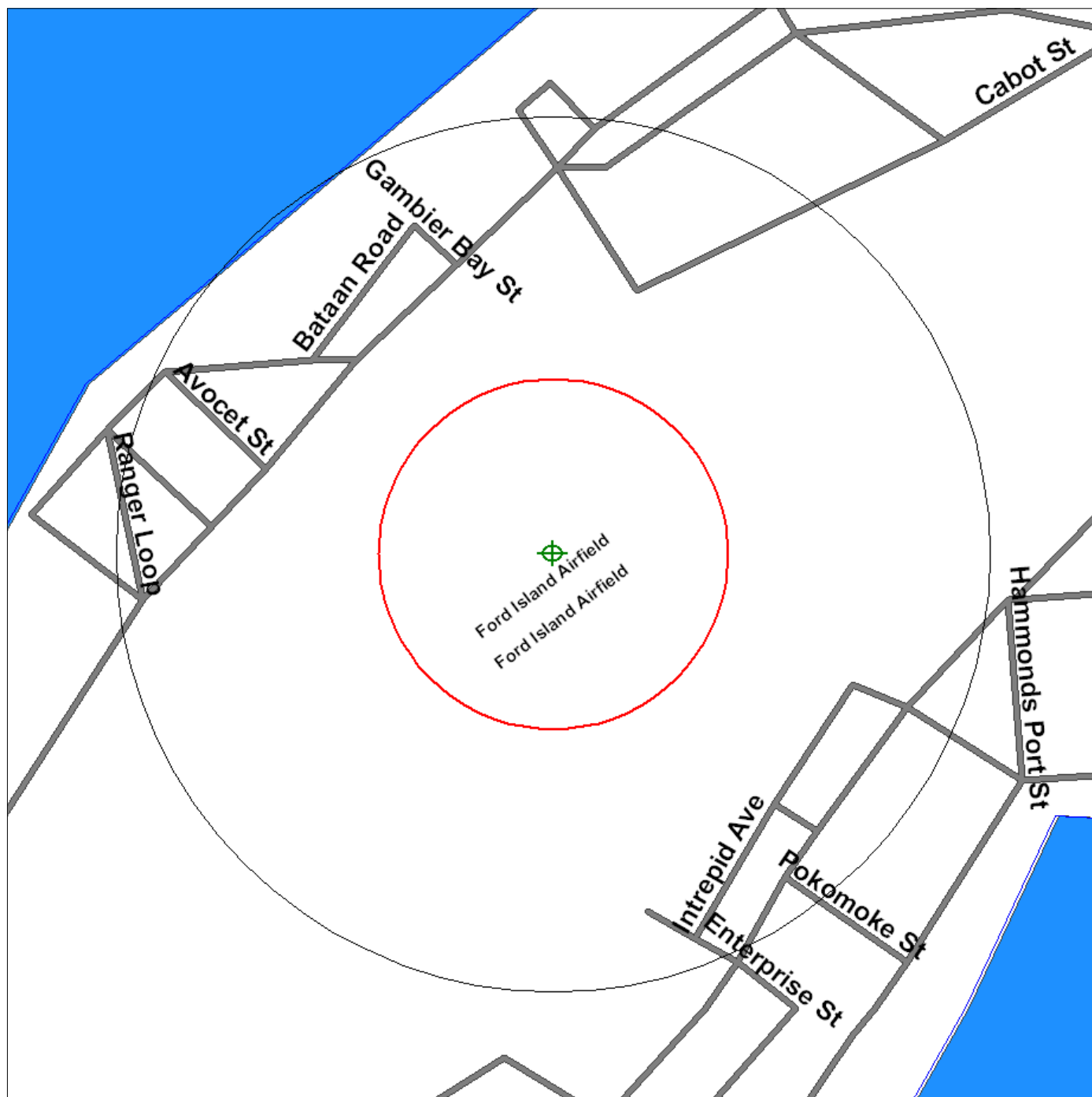


# Environmental FirstSearch

.25 Mile Radius  
Non-ASTM Map: No Sites Found



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

National Historic Sites and Landmark Sites .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



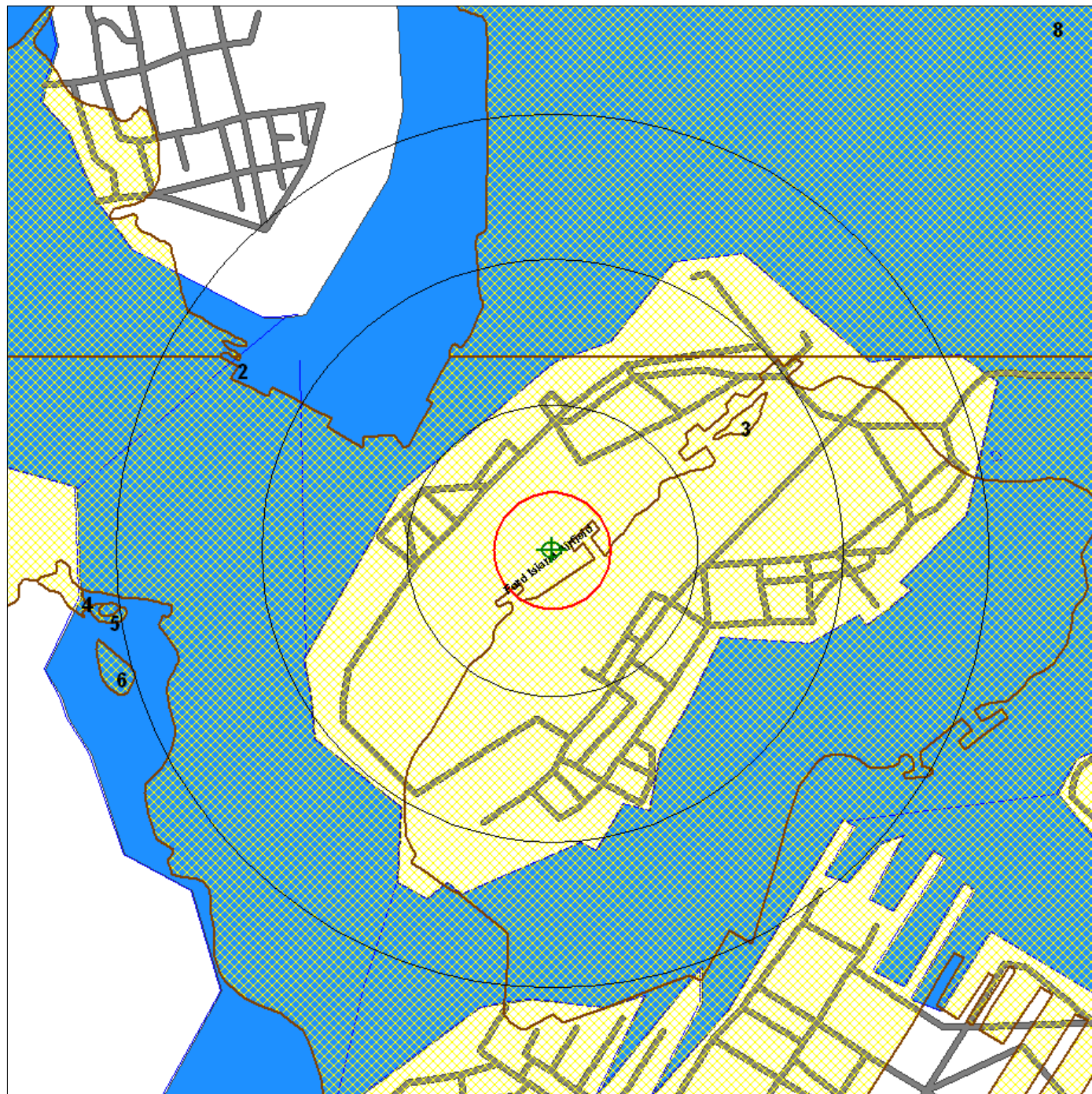


# Environmental FirstSearch

.75 Mile Radius  
NEPA Map: WETLANDS



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) ..

Identified Site, Multiple Sites, Receptor .....

Wetlands .....

Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

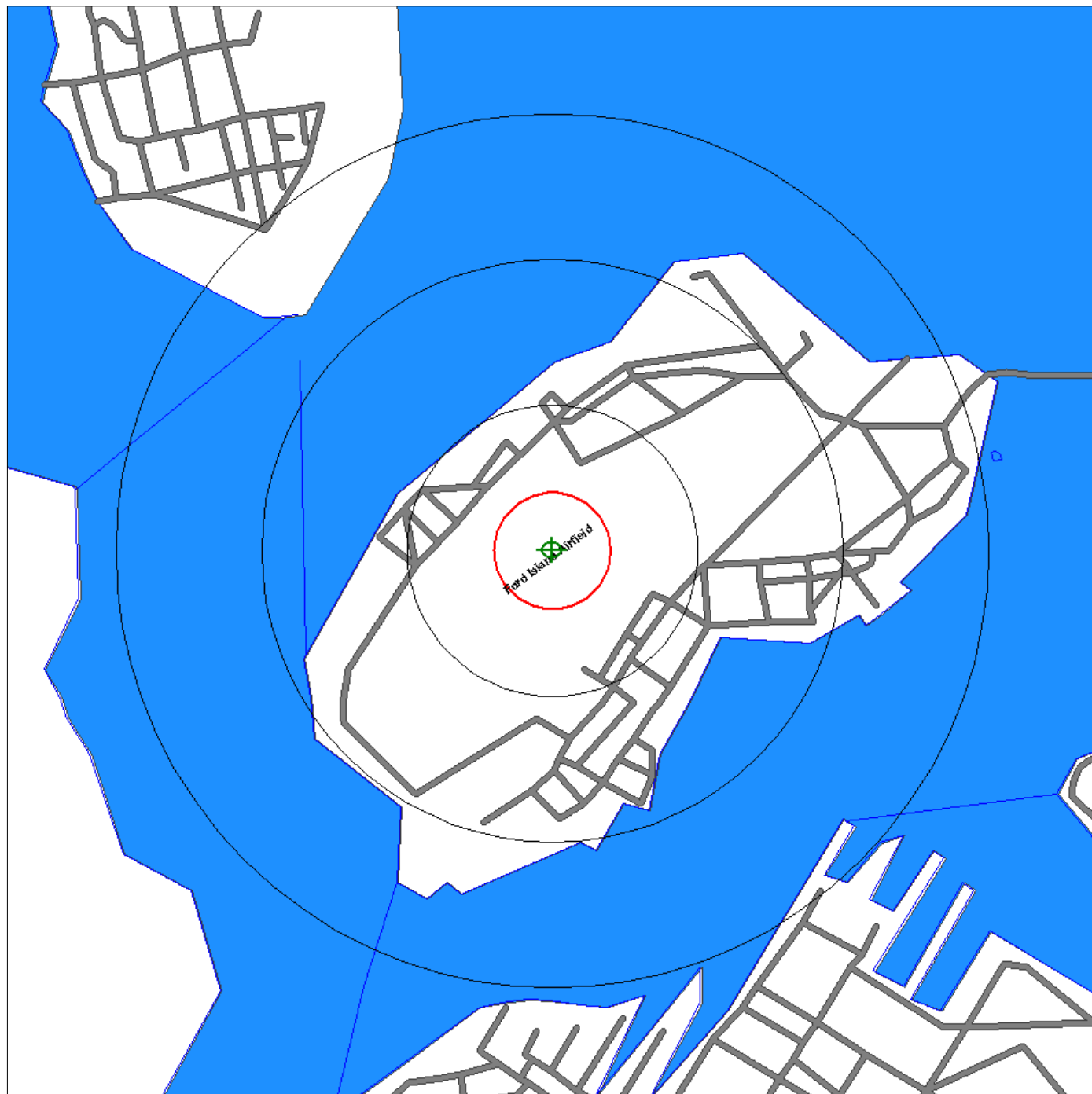


# Environmental FirstSearch

.75 Mile Radius  
NEPA Map: FLOODPLAINS



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....



Identified Site, Multiple Sites, Receptor .....



Floodplains: 100 Year, 500 Year .....



Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

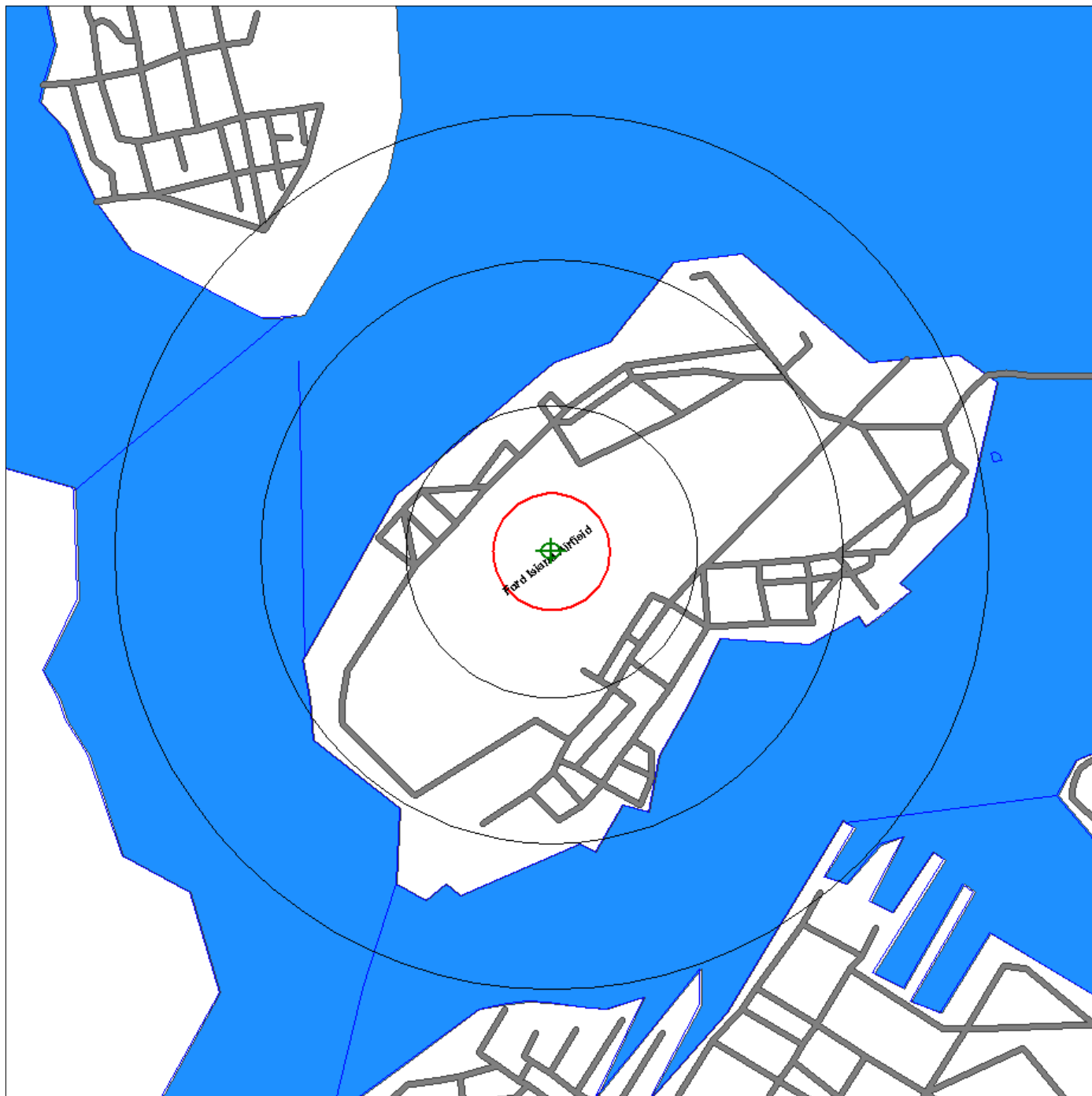


## Environmental FirstSearch

.75 Mile Radius  
NEPA Map: ACEC SITES



### FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....



Receptor .....



Area of Critical Environmental Concern (ACEC), Protected Open Spaces .....



Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

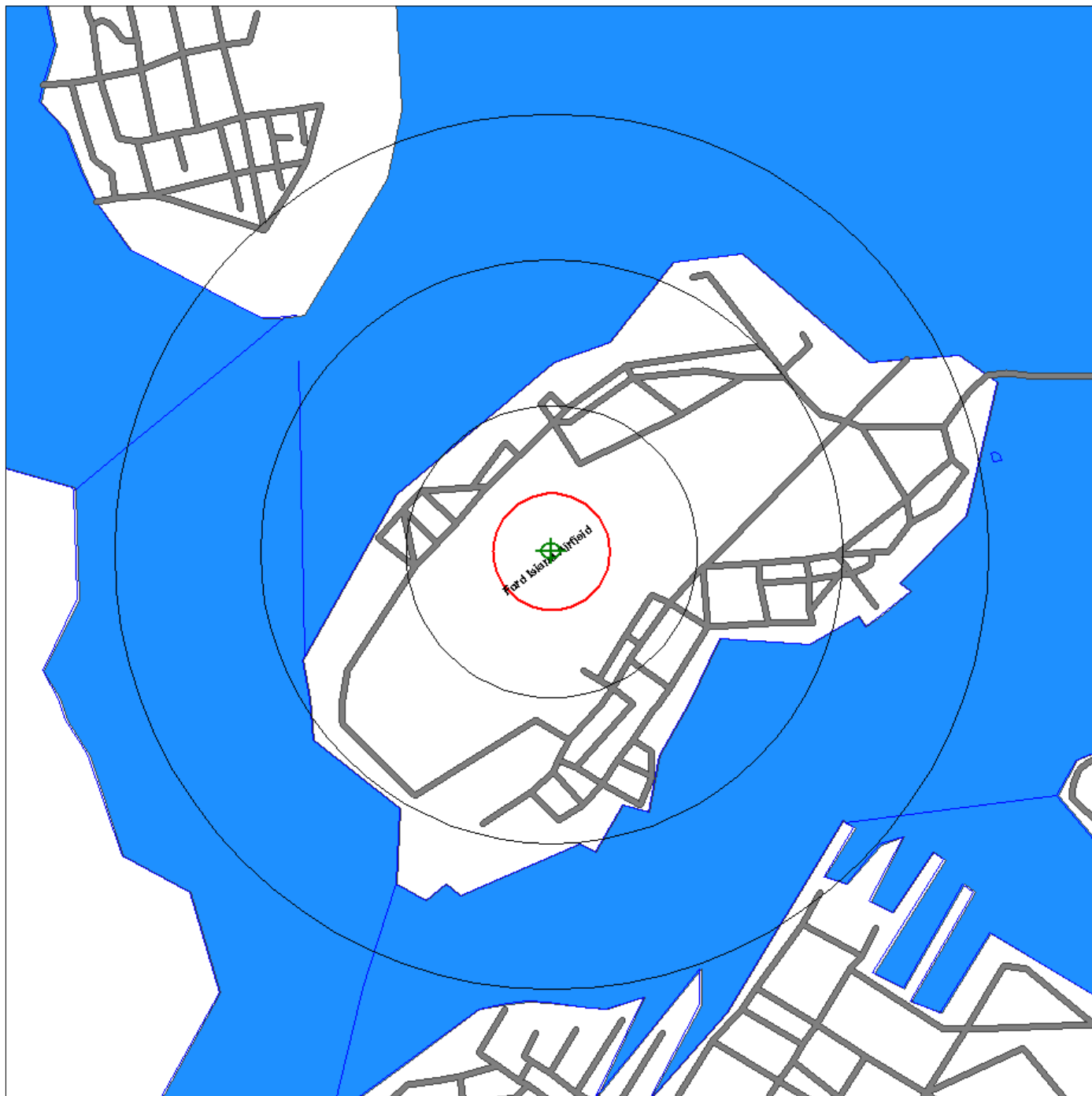


# Environmental FirstSearch

.75 Mile Radius  
NEPA Map: HISTORIC SITES



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Receptor .....

National Historic Sites and Landmark Sites .....

Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

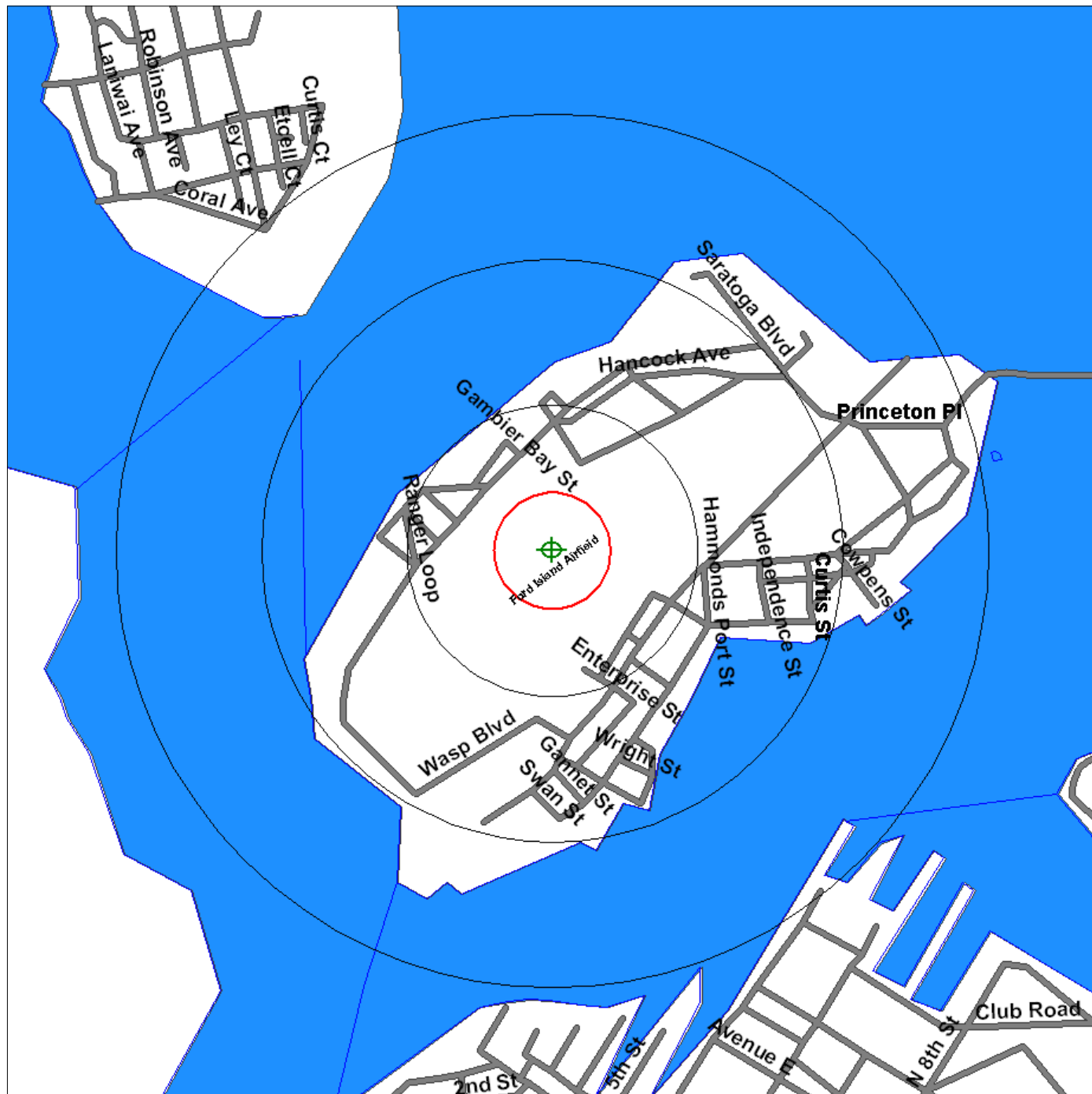


# Environmental FirstSearch

.75 Mile Radius  
NEPA Map: LANDUSE



## FORD ISLAND NAVAL FAMILY HOUSING, PEARL HARBOR HI 9681



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Receptor .....

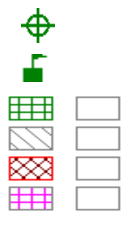
Fed. Land Use: Wilderness Areas .....

Fed. Land Use: Wildlife Preserves .....

Fed. Land Use: Amer. Indian Sacred Sites.....

Fed. Land Use: Endangered Species' Habitats.....

Railroads .....



Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

**TARGET PROPERTY:**

**PEARL HARBOR HI 96860**

Job Number: 904283

**PREPARED FOR:**

Parsons

100 West Walnut Street

Pasadena, CA 91124

08-13-06



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# ***Environmental FirstSearch Search Summary Report***

## **Target Site:**

PEARL HARBOR HI 96860

### **FirstSearch Summary**

<b>Database</b>	<b>Sel</b>	<b>Updated</b>	<b>Radius</b>	<b>Site</b>	<b>1/8</b>	<b>1/4</b>	<b>1/2</b>	<b>1/2&gt;</b>	<b>ZIP</b>	<b>TOTALS</b>
NFRAP	Y	06-08-06	0.50	0	0	0	0	-	0	0
Brownfield	Y	10-18-05	0.50	0	0	0	0	-	0	0
- TOTALS -				0	0	0	0	0	0	0

### **Notice of Disclaimer**

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### **Waiver of Liability**

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

***Environmental FirstSearch  
Site Information Report***

**Request Date:** 08-13-06  
**Requestor Name:** (b) (6)  
**Standard:** AAI

**Search Type:** COORD  
**Job Number:** 904283

**Filtered Report**

**TARGET ADDRESS:**

PEARL HARBOR HI 96860

*Demographics*

<b>Sites:</b> 0	<b>Non-Geocoded:</b> 0	<b>Population:</b> NA
<b>Radon:</b> NA		

*Site Location*

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>		<u>UTMs</u>
<b>Longitude:</b>	-157.965	-157:57:54	<b>Easting:</b>	607307.199
<b>Latitude:</b>	21.367	21:22:1	<b>Northing:</b>	2362979.463
			<b>Zone:</b>	4

*Comment*

**Comment:**RERUN ASTM 05

*Additional Requests/Services*

**Adjacent ZIP Codes:** 1 Mile(s)

**Services:**

ZIP Code	City Name	ST	Dist/Dir	Sel
96782	PEARL CITY	HI	0.33 NW	Y
96797	WAIPAHU	HI	0.61 SW	Y

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

*Environmental FirstSearch*  
*Sites Summary Report*

**TARGET SITE:**

PEARL HARBOR HI 96860

**JOB:** 904283

RERUN ASTM 05

**TOTAL:** 0

**GEOCODED:** 0

**NON GEOCODED:** 0

**SELECTED:** 0

<u>Page No.</u>	<u>DB Type</u>	<u>Site Name/ID/Status</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>
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***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:**

PEARL HARBOR HI 96860

**JOB:** 904283

RERUN ASTM 05

No sites were found!

***Environmental FirstSearch  
Site Detail Report***

**TARGET SITE:**

PEARL HARBOR HI 96860

**JOB:** 904283

RERUN ASTM 05

No sites were found!

## Environmental FirstSearch Database Descriptions

**NFRAP:** *EPA* COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

## Environmental FirstSearch Database Sources

**NFRAP:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**TARGET SITE:**

PEARL HARBOR HI 96860

**JOB:** 904283

RERUN ASTM 05

Street Name	Dist/Dir	Street Name	Dist/Dir
Avocet St	0.17 NW		
Bataan Rd	0.17 NW		
Enterprise St	0.22 SE		
Gambier Bay St	0.17 NW		
Hancock Ave	0.22 NE		
Intrepid Ave	0.19 SE		
Kingfisher St	0.19 NW		
Kittyhawk St	0.19 SE		
Lexington Blvd	0.22 SE		
Pokomoke St	0.23 SE		
Ranger Loop	0.16 NW		
San Jacinto St	0.23 SW		
Wasp Blvd	0.15 NW		
Yorktown Blvd	0.22 NE		



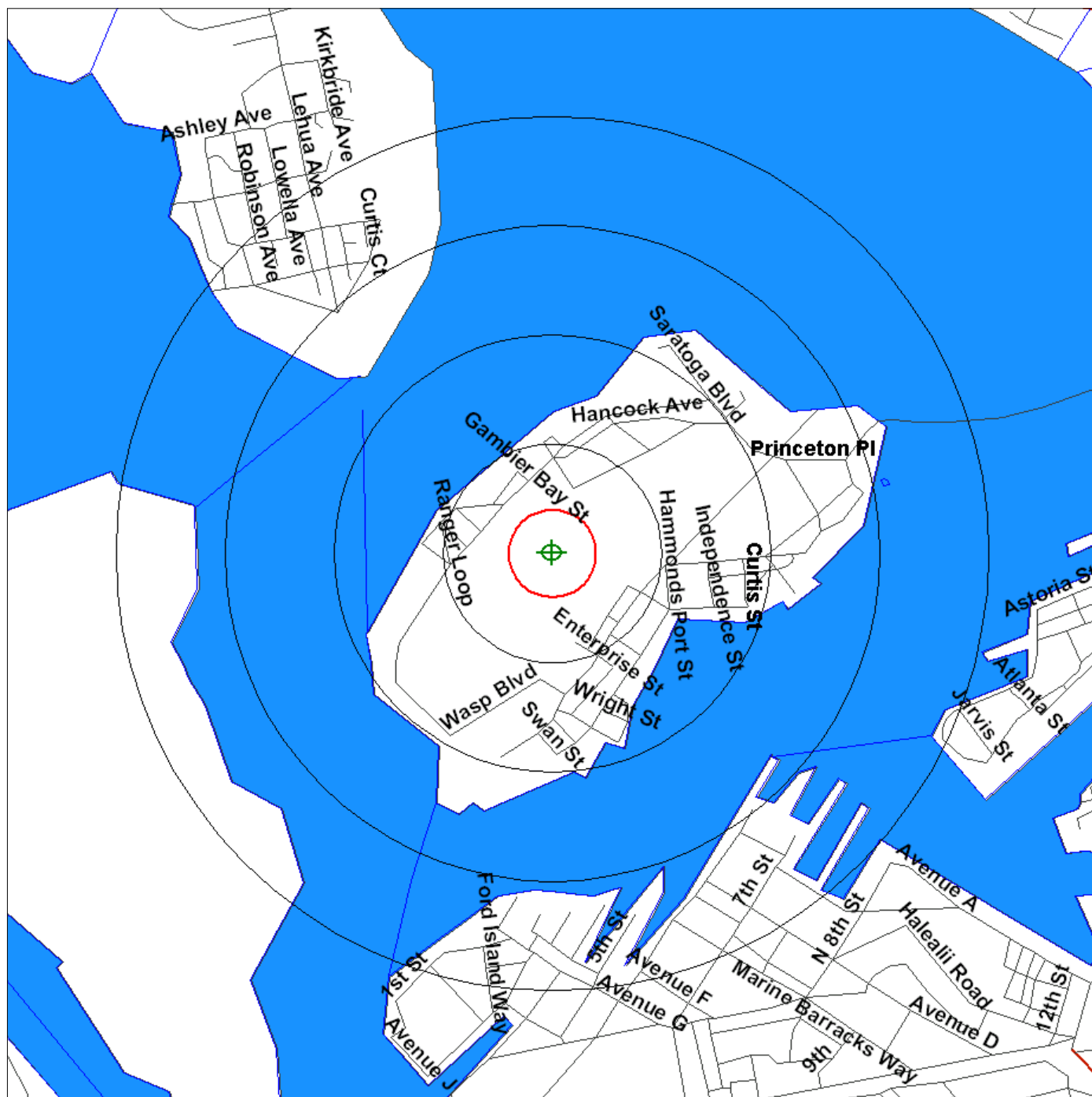
# Environmental FirstSearch

1 Mile Radius

Single Map:



, PEARL HARBOR HI 96860



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius



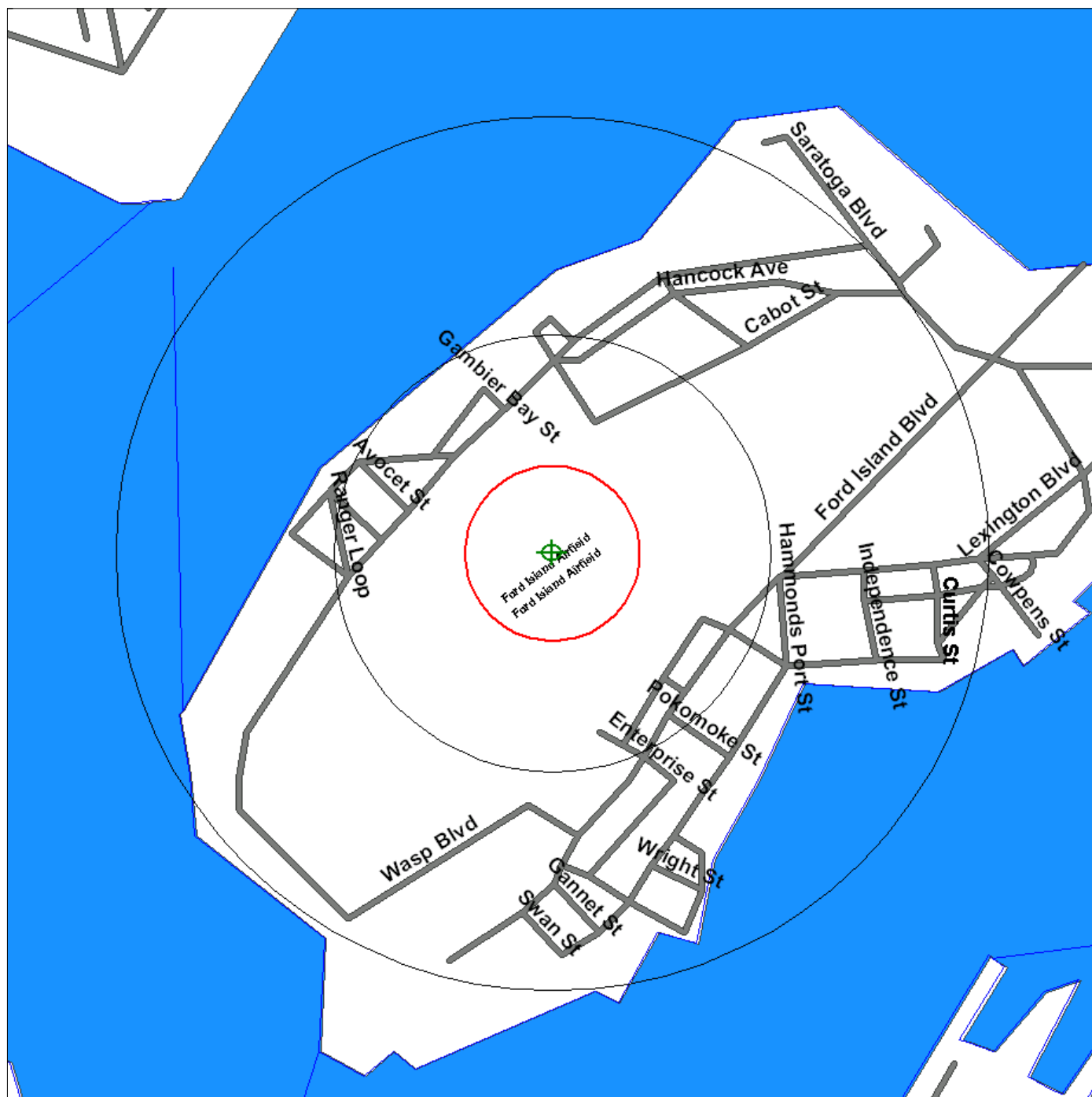


# Environmental FirstSearch

.5 Mile Radius  
AAI: NFRAP, BROWNFIELD



, PEARL HARBOR HI 96860



Source: U.S. Census TIGER Files

Target Site (Latitude: 21.367 Longitude: -157.965) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Brownfield, Solid Waste Landfill (SWL) or Hazardous Waste

Railroads .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius





## Appendix B

### HISTORICAL AERIAL PHOTOGRAPHS





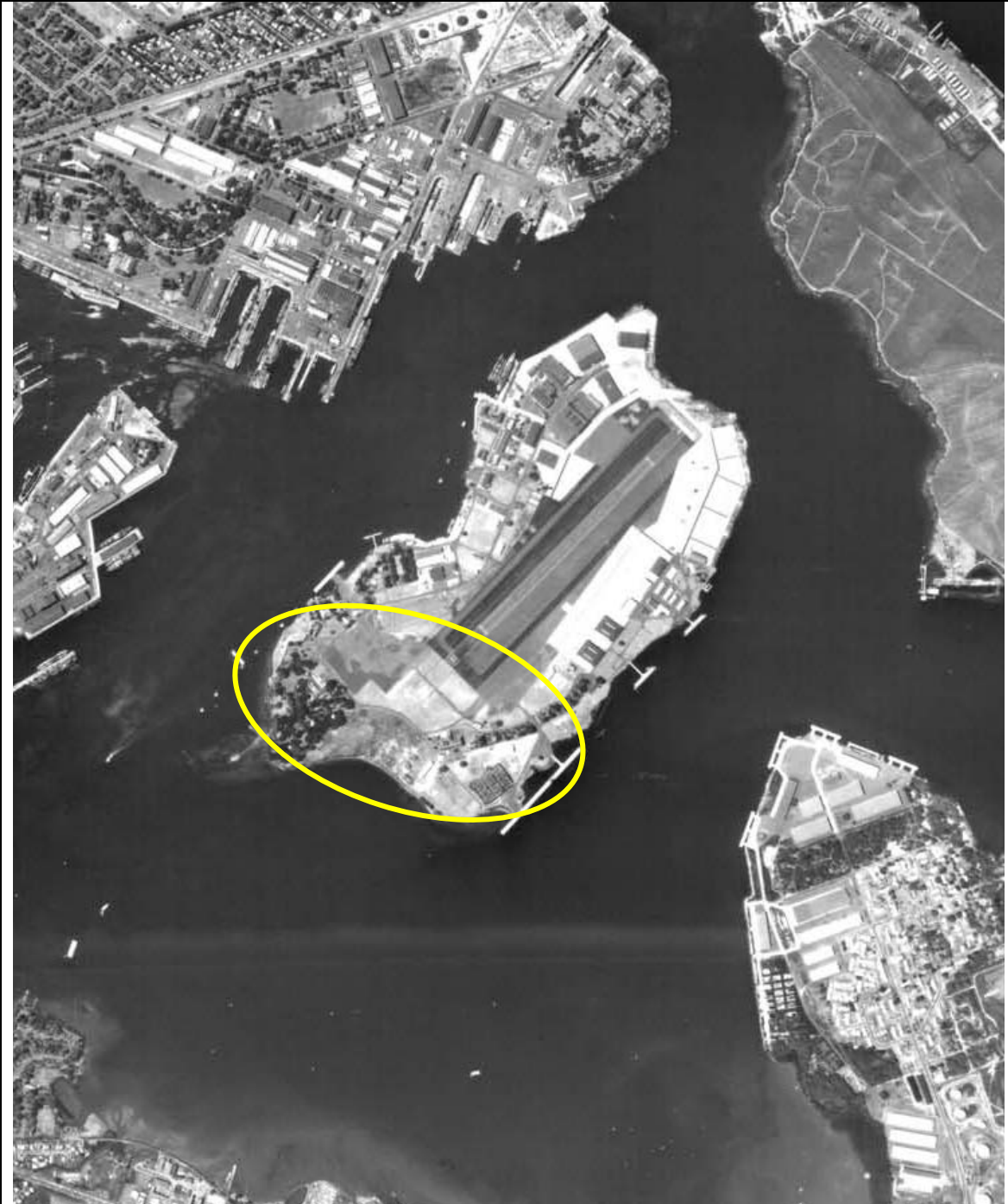
Source: Track Info Services



NORTH

NO SCALE

1952 Historical Aerial Photograph  
Ford Island Naval Family Housing



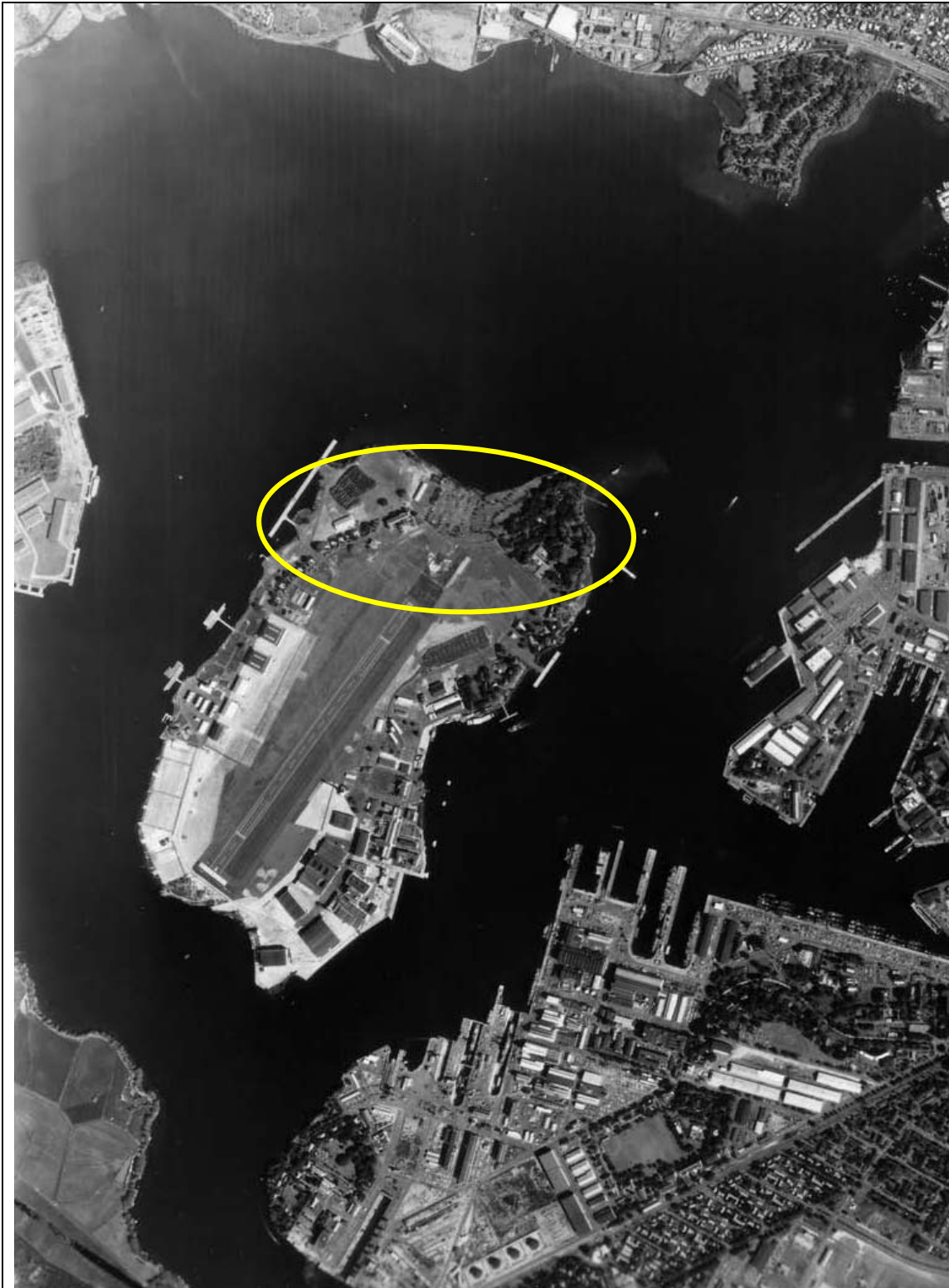
Source: *Track Info Services*



NORTH

NO SCALE

1967 Historical Aerial Photograph  
Ford Island Naval Family Housing



Source: Track Info Services



NORTH

NO SCALE

1973 Historical Aerial Photograph  
Ford Island Naval Family Housing



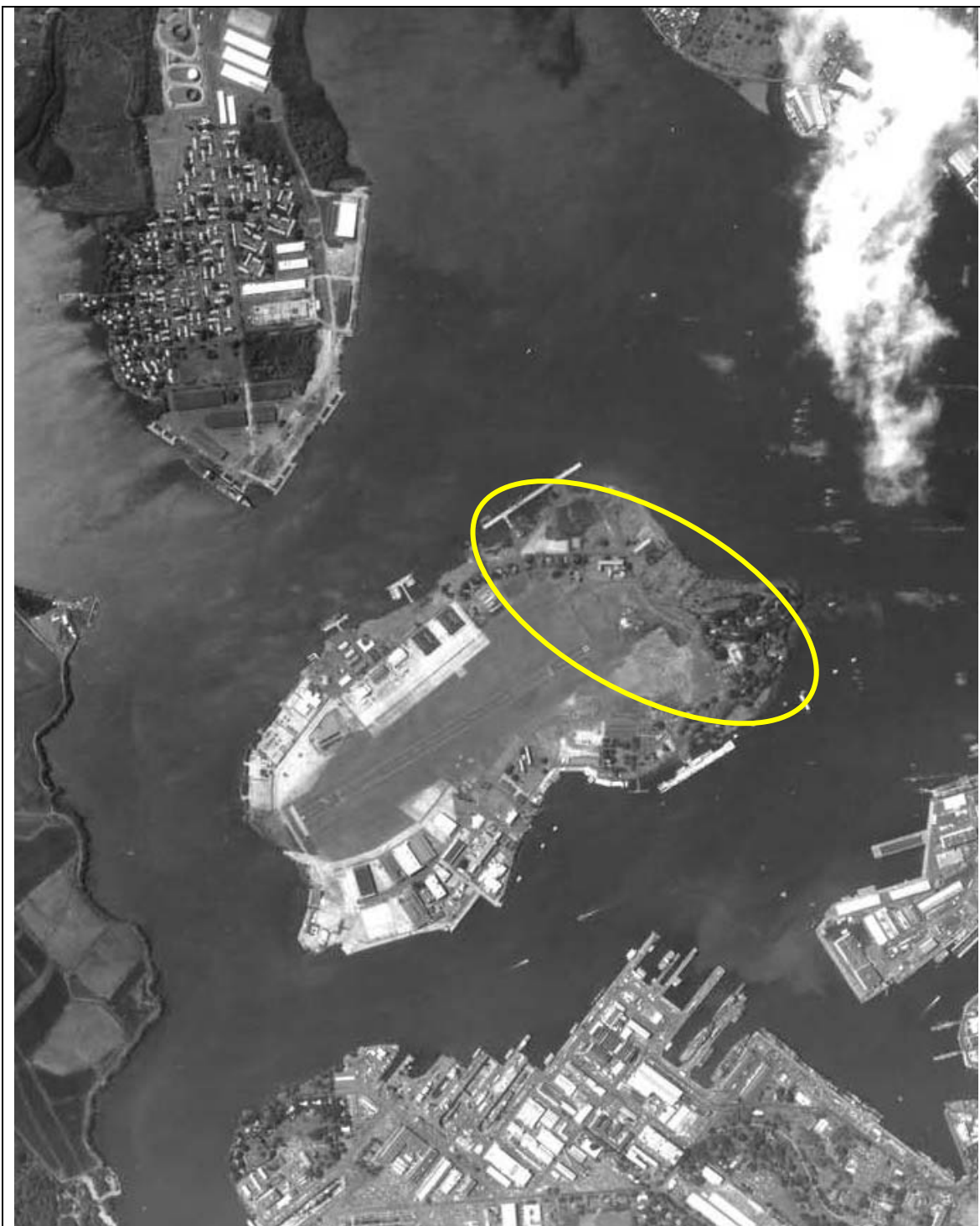
Source: Track Info Services



NORTH

NO SCALE

1982 Historical Aerial Photograph  
Ford Island Naval Family Housing



Source: Track Info Services



NORTH

NO SCALE

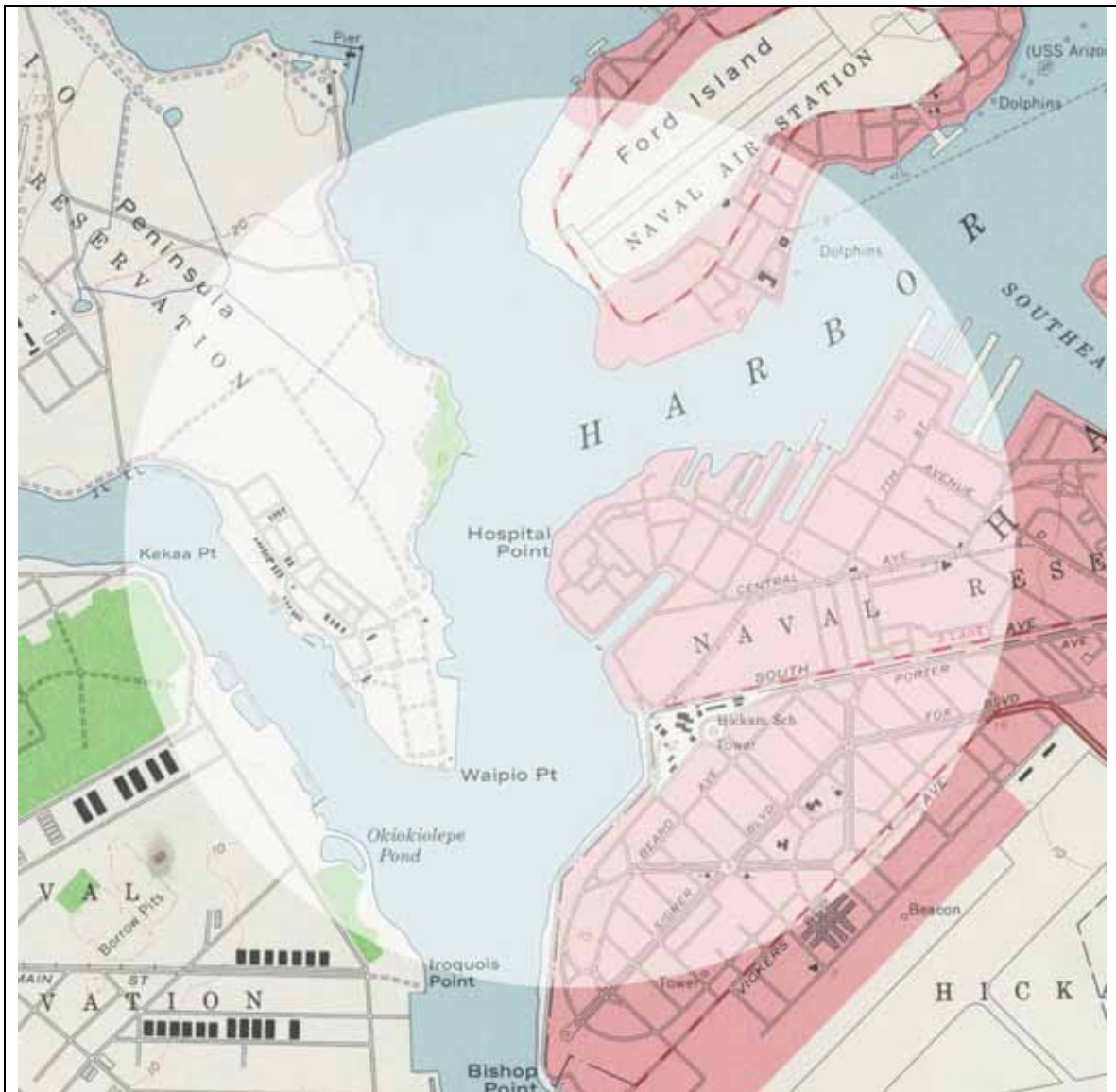
1994 Historical Aerial Photograph  
Ford Island Naval Family Housing



## Appendix C

### HISTORICAL TOPOGRAPHICAL MAPS



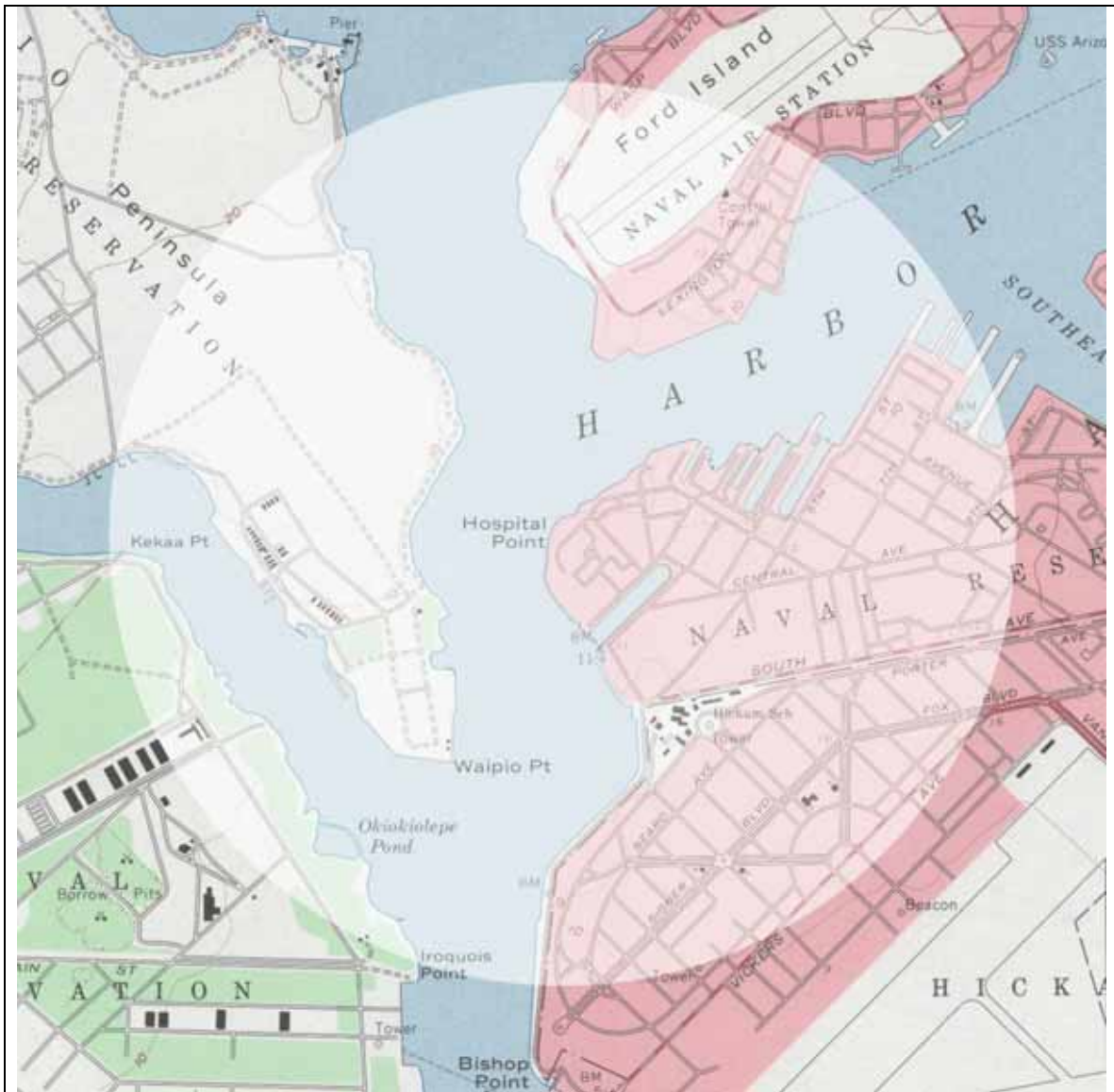


Source: USGS Puuloa, Hawaii Quadrangle, 7.5 Minute Series, 1959 (modified)



1 inch = 1667 feet  
SCALE

1959 Historical Topographic Map  
Proposed Ford Island  
Naval Family Housing



Source: USGS Puuloa, Hawaii Quadrangle, 7.5 Minute Series, 1968 (modified)

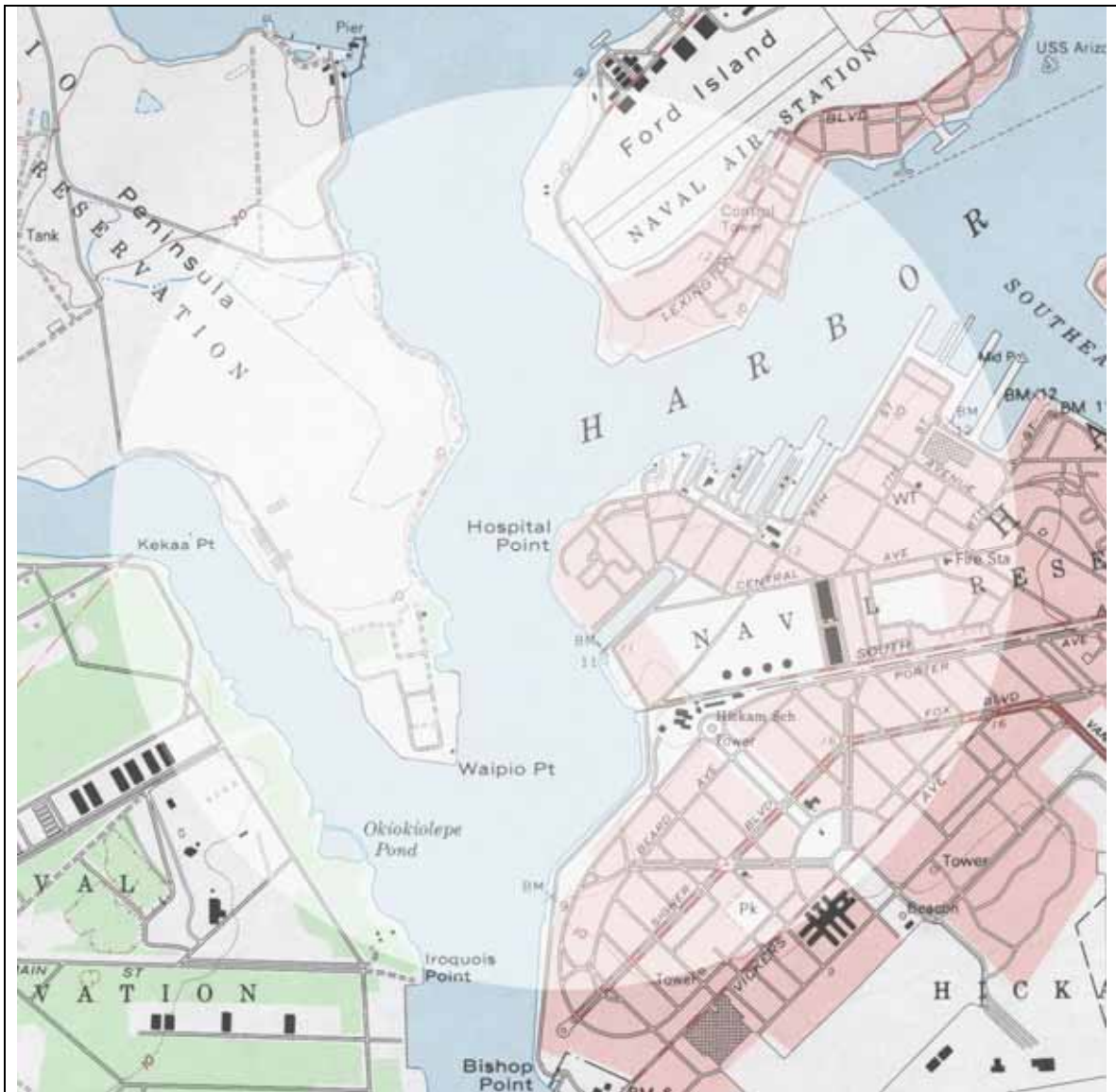


NORTH



1 inch = 1670 feet  
SCALE

1968 Historical Topographic Map  
Proposed Ford Island  
Naval Family Housing



Source: USGS Pearl Harbor, Hawaii Quadrangle, 7.5 Minute Series, 1983 (modified)

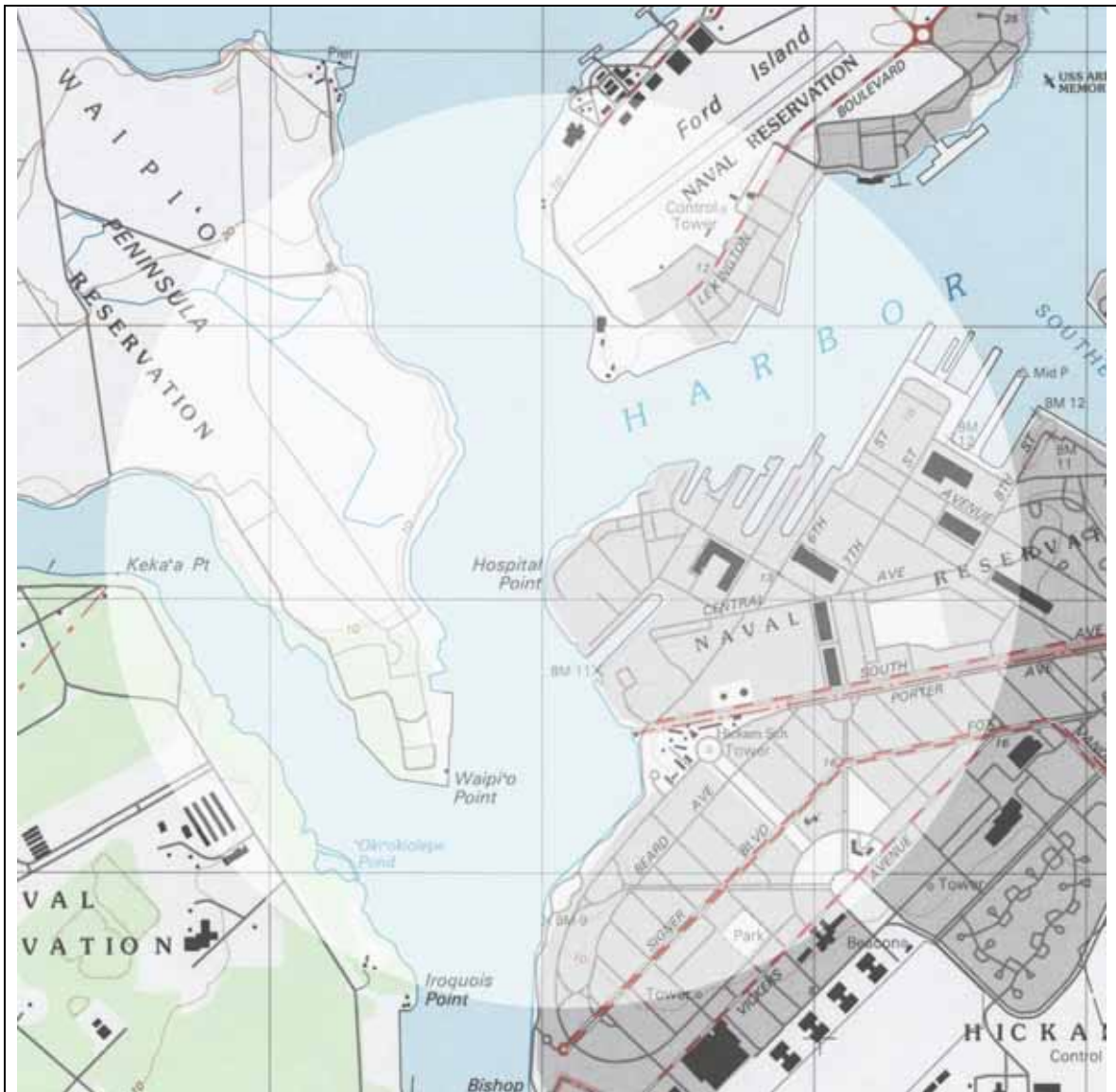


NORTH



1 inch = 1670 feet  
SCALE

1983 Historical Topographic Map  
Proposed Ford Island  
Naval Family Housing



Source: USGS Pearl Harbor, Hawaii Quadrangle, 7.5 Minute Series, 1999 (modified)



NORTH



1 inch = 1653 feet  
SCALE

1999 Historical Topographic Map  
Proposed Ford Island  
Naval Family Housing

# ***FINAL PHASE II ENVIRONMENTAL SITE ASSESSMENT***

## ***NORTH FORD ISLAND NAVAL FAMILY HOUSING AREA***

***Prepared for***



**Honolulu, Hawaii**

**September 2006**

***Prepared by***

**PARSONS**

---

1132 BISHOP STREET, SUITE 2102 • HONOLULU • HAWAII 96813



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## **ACRONYMS AND ABBREVIATIONS**

ACM	Asbestos-containing material
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
bgs	below ground surface
EP	Environmental Professional
EAL	Environmental Action Level
ESA	Environmental Site Assessment
ft	feet
HDOH	Hawaii Department of Health
HUD	United States Department of Housing and Urban Development
kg	Kilograms
LBP	Lead-based paint
LUST	Leaking underground storage tank
m	Meter
mg/kg	milligram per kilogram
PCB	Polychlorinated biphenyl
PE	Professional Engineer
PID	Photoionization detector
PPV	Public Private Venture
REC	Recognized Environmental Condition
USEPA	United States Environmental Protection Agency
UST	Underground storage tank
VOC	Volatile organic compound

## **1.0 SUMMARY**

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of volatile organic compounds (VOCs) and metals in soil conducted at a vacant parcel within the North Ford Island Naval Family Housing Area. The North Ford Island Family Housing Area is located on Ford Island at Pearl Harbor, Oahu, Hawaii. The area sampled and described in this Phase II ESA, known as PPV North, is currently vacant and proposed for future housing development (Figure 1). PPV North is approximately 18.178 acres in size. Ohana Military Communities, LLC will be the lessee of the site and will build and own 102 new housing units.

During the Phase II field investigation, shallow soil samples were collected from ten (10) randomly distributed soil borings throughout the site. At each individual sampling location discrete samples were collected and then screened for VOCs with a photoionization detector (PID) field instrument. At each location, soil samples from the depth with the highest PID reading were then collected and submitted to a fixed-base laboratory for VOC and metals analyses. No compositing was performed. As a result, 10 representative samples from depths of between 1 and 10 feet bgs were analyzed by the laboratory. All soil samples were analyzed for VOCs, mercury, and the seven (7) RCRA metals (i.e. silver, arsenic, barium, chromium, cadmium, lead, selenium) by EPA methods 8260B (VOCs) and SW6010B (metals).

In the opinion of the Environmental Professional (EP), the findings and conclusions for the vacant PPV North parcel within the North Ford Island Family Housing Area are:

- 1) VOCs that were analyzed were not detected in any samples.
- 2) Concentrations of all metals that were analyzed were below their respective Tier 1 EAL in all samples.
- 3) At soil boring B6, located beneath the parking lot in the southwest corner of the site, a slight petroleum odor associated with the soil sampled collected from this location was noted by field personnel. However, no VOCs were detected in this sample.

Based on these findings and conclusions, it is the opinion of the EP that for the vacant PPV North parcel within the North Ford Island Family Housing Area:

- 1) Mitigation measures for soil do not appear to be warranted.
- 2) As noted in the Phase 1 ESA and consistent with the results from this Phase II sampling effort, the AVGAS pipeline does not pose a risk to residents of the North Ford Island neighborhoods and is not an REC to the project site. However, it is recommended that during construction of new housing at PPV North that the construction contractor(s) be informed of the location of the abandoned and/or removed portions of the pipeline and informed of the petroleum odor noted during soil sample collection under the parking lot.

## **2.0 INTRODUCTION**

The purpose of this Final Phase II Environmental Site Assessment (ESA) is to present the site-specific results and recommendations from a subsurface investigation of VOCs and metals in soil conducted at a vacant parcel within the North Ford Island Naval Family Housing Area. The North Ford Island Family Housing Area is located on Ford Island at Pearl Harbor, Oahu, Hawaii. The area sampled and described in this Phase II ESA, known as PPV North, is currently vacant and proposed for future housing development (Figure 1). PPV North is approximately 18.178 acres in size. Ohana Military Communities, LLC will be the lessee of the site and will build and own 102 new housing units.

### **SPECIAL TERMS AND CONDITIONS**

- The information and conclusions presented in this report are valid only for the circumstances of the site investigated as described as of the dates in this report.
- Parsons evaluated the reasonableness and completeness of available relevant information, but does not assume responsibility for the truth or accuracy of any information provided to Parsons by others or for the lack of information that is intentionally, unintentionally, or negligently withheld from Parsons by others.
- After acceptance of this report, if Parsons obtains information that it believes warrants further exploration and development, Parsons will endeavor to provide that information, but Parsons will not be liable for not doing so.

### **LIMITATIONS AND EXCEPTIONS OF ASSESSMENT**

To achieve the study objectives stated in this report, Parsons based its conclusions on the best information available during the period of the investigation and in accordance with generally-accepted environmental methodologies.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Professional judgment was exercised in gathering and evaluating the information obtained, and Parsons commits itself to the usual care, thoroughness, and competence of the engineering profession.

### **OTHER RECS IDENTIFIED IN PHASE 1 ESA**

The following RECs were identified in the Phase 1 ESA and Parsons recommends the following:

- Suspected presence of asbestos-containing materials in building materials — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Suspected presence of lead in paint and dust — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.

- Potential PCB-containing ballasts in fluorescent lighting — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential radioactive sources in smoke detectors — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential mercury-containing light switches and lamps — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Potential arsenic-containing canec board in building materials — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Chlordane and other pesticides, including DDT, dieldrin, and heptachlor, for soil adjacent to and under existing homes — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.
- Chemicals of potential concern for the sediments of Pearl Harbor — Parsons recommends that the PPV continue to monitor this REC and follow any relevant Plans and Environmental Laws related to such REC.

#### **USER RELIANCE**

This report was prepared for Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC. It may be relied upon by Ohana Military Communities, LLC, its Managing Member and other Members of Ohana Military Communities, LLC, the United States of America, Department of the Navy, (b) (4)

, and each of their respective officers, directors, employees, affiliates, successors, assigns, legal counsel and advisors.

### **3.0 BACKGROUND INFORMATION**

#### **LOCATION AND DESCRIPTION OF PROPERTY**

The North Ford Island Family Housing Area is located at Latitude (North) 21.367, Longitude (West) 157.965. The site is located on the north third of Ford Island at Pearl Harbor. Access to the site is restricted through the Admiral Clarey Bridge.

Ohana Military Communities, LLC will be the lessee of the site and will be the owner of 180 housing units, of which 40 will be renovated and 40 will not change. The Ohana Military Communities, LLC will build 102 new housing units.

#### **SITE AND VICINITY CHARACTERISTICS**

Table 3-1 provides a description of the properties directly adjacent to the site.

**Table 3-1  
Adjacent Properties**

<b>Direction</b>	<b>Description of Adjacent Properties</b>
North	East Loch of Pearl Harbor.
East	USS Arizona Memorial and East Loch of Pearl Harbor.
South	USS Missouri, and the rest of Ford Island (historical runway, historical tower, hangars, abandoned pipelines and other industrial-type buildings).
West	Middle Loch of Pearl Harbor.

#### **DESCRIPTIONS OF STRUCTURES, ROADS, OTHER IMPROVEMENTS ON THE SITE**

The North Ford Island Naval Family Housing Area consists of three areas: Luke Field and Kamehameha Loop housing area, Nob Hill housing area, and a vacant lot located directly southwest of Nob Hill slated for future construction of additional family housing units (known as PPV North). These three areas occupy the north third of the island. Access to the island is restricted through the Admiral Clarey Bridge. Ford Island is part of the Pearl Harbor Naval Complex.

Typical landscaping bordering the housing units include grass and trees. Interior roads are paved with black top. Utilities in the newer Kamehameha Loop housing area are underground. At Luke Field and Nob Hill, power is provided to the units through overhead power connections.

## **GROUNDWATER AND SURFACE WATER**

Groundwater beneath Ford Island is unlikely to be used for domestic purposes based on its location below the Underground Injection Control (UIC) Line. Pearl Harbor is located approximately 150 meters from the southeastern portion of the vacant site.

## **LIST OF RECOGNIZED ENVIRONMENTAL CONDITIONS FROM PHASE I ESA**

The following RECs were identified for the North Ford Island Housing Area: (1) ACM, (2) lead, (3) PCB-containing ballasts, (4) smoke detectors, 5) mercury switches in housing units and associated structures, (6) arsenic in canec walls and ceilings, (7) chlordane and other pesticides, including DDT, dieldrin, and heptachlor, in soil, and (8) sediments located in Pearl Harbor.

## **4.0 PHASE II ESA ACTIVITIES**

### **SAMPLING STRATEGY AND METHODS**

Shallow soil samples were collected from ten (10) randomly distributed soil borings throughout the site (Figure 1). At each individual sampling location or “push”, discrete samples were collected continuously between approximately one (1) foot (ft) and 10 ft below ground surface (bgs) and then screened for VOCs with a photoionization detector (PID) field instrument. At each location, soil samples from the depth with the highest PID reading were then collected and submitted to a fixed-base laboratory for VOC and metals analyses. No compositing was performed. As a result, 10 representative samples from depths of between 1 and 10 feet bgs were analyzed by the laboratory. All soil samples were analyzed for VOCs, mercury, and the seven (7) RCRA metals (i.e. silver, arsenic, barium, chromium, cadmium, lead, selenium) by EPA methods 8260B (VOCs) and SW6010B (metals).

All soil samples were collected using direct-push sampling methods.

### **REGULATORY COMPARISON CRITERIA**

For this site, the Phase II soil sampling results are compared with Tier 1 Environmental Action Levels (EALs), consistent with guidance in the Hawaii Department of Health (HDOH, 2005) “*Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*”. EALs are conservative screening concentrations that can be used to assess the potential risks to humans or the environment. It can be assumed that contaminants of potential concern (COPCs) do not pose a significant threat to human health or the environment when concentrations are less than EALs. However, COPC concentrations greater than EALs do not necessarily indicate unacceptable risks, but typically indicate the need for further evaluation. Under “Tier 1”, site data are compared directly with HDOH generic and conservative Tier 1 EALs. HDOH also supports the development of project specific or site specific Tier 2 EALs; however, for this site no project-specific Tier 2 EALs were developed.

The applicable Tier 1 EALs for this site are provided in Appendix 1, taken directly from Table B-2 of HDOH (2005).

## **5.0 EVALUATION AND PRESENTATION OF RESULTS**

Laboratory data packages with detailed sampling results are provided in Appendix 2. VOCs that were analyzed were not detected in any samples. Concentrations of all metals that were analyzed were below their respective Tier 1 EAL in all samples.

## **6.0 DISCUSSION OF FINDINGS AND CONCLUSIONS**

For the vacant PPV North parcel within the North Ford Island Family Housing Area:

- 1) VOCs that were analyzed were not detected in any samples.
- 2) Concentrations of all metals that were analyzed were below their respective Tier 1 EAL in all samples.
- 3) At soil boring B6, located beneath the parking lot in the southwest corner of the site, a slight petroleum odor associated with the soil sampled collected from this location was noted by field personnel. However, no VOCs were detected in this sample.

Based on these results, it is the opinion of the EP that:

- 1) Mitigation measures for soil do not appear to be warranted.
- 2) As noted in the Phase 1 ESA and consistent with the results from this Phase II sampling effort, the AVGAS pipeline does not pose a risk to residents of the North Ford Island neighborhoods and is not an REC to the project site. However, it is recommended that during construction of new housing at PPV North that the construction contractor(s) be informed of the location of the abandoned and/or removed portions of the pipeline and informed of the petroleum odor noted during soil sample collection under the parking lot.

## **7.0 SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)**

Parsons declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of Title 40, Code of Federal Regulations (CFR), Part 312 dated 1 November 2005.

We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR 312.

Signature:

Date:

(b) (6)

A large black rectangular redaction box covers the signature area. The text "(b) (6)" is printed in red at the top left corner of the box.

September 2006

(b) (6), P.E.

FIGURES



## LEGEND

B3



Phase 2 soil sampling location



Approximate location of abandoned and/or removed fuel pipeline

FIGURE 1

SAMPLING LOCATIONS  
Ford Island - North

**PARSONS**

APPENDIX 1 – TIER 1 ENVIRONMENTAL ACTION LEVELS FOR SOIL

**TABLE B-2. SOIL ACTION LEVELS**  
**(Potentially impacted groundwater IS NOT a current or potential drinking water resource;**  
**Surface water body IS located within 150m of release site)**

CONTAMINANT	(mg/kg)								
	Final SAL	Basis	Gross Contamination Ceiling Value (Odors, etc.)	<sup>2</sup> Urban Area Ecotoxicity Criteria	Other		<sup>1</sup> Human Health		Groundwater Protection (Soil Leaching)
			Table F-2		Value	Basis	Direct Exposure	Vapor Intrusion Concerns	NON-Drinking Water Resource
			Table F-2	Table L			Table I-1	Table C-1b	Table E-1
ACENAPHTHENE	1.9E+01	Groundwater Protection	1.0E+03	-			3.7E+03	1.3E+02	1.9E+01
ACENAPHTHYLENE	1.3E+01	Groundwater Protection	5.0E+02	-			1.3E+03	(Use soil gas)	1.3E+01
ACETONE	5.0E-01	Groundwater Protection	5.0E+02	-			1.4E+04	5.6E+03	5.0E-01
ALDRIN	2.9E-02	Direct Exposure	1.0E+03	3.5E-01			2.9E-02		5.0E+00
ANTHRACENE	2.8E+00	Groundwater Protection	5.0E+02	4.0E+01			2.2E+04	6.1E+00	2.8E+00
ANTIMONY	2.0E+01	Ecotoxicity	1.0E+03	2.0E+01			3.1E+01		(site-specific)
ARSENIC	2.2E+01	Background	1.0E+03	2.0E+01	2.2E+01	Background	4.2E-01		(site-specific)
BARIUM	7.5E+02	Ecotoxicity	1.0E+03	7.5E+02			5.4E+03		(site-specific)
BENZENE	5.3E-01	Indoor Air Impacts	5.0E+02	2.5E+01			6.4E-01	5.3E-01	2.0E+00
BENZO(a)ANTHRACENE	6.2E+00	Direct Exposure	5.0E+02	4.0E+01			6.2E+00		1.2E+01
BENZO(a)PYRENE	6.2E-01	Direct Exposure	5.0E+02	4.0E+01			6.2E-01		1.3E+02
BENZO(b)FLUORANTHENE	6.2E+00	Direct Exposure	5.0E+02	-			6.2E+00		4.6E+01
BENZO(g,h,i)PERYLENE	2.7E+01	Groundwater Protection	5.0E+02	4.0E+01			2.3E+03		2.7E+01
BENZO(k)FLUORANTHENE	3.7E+01	Groundwater Protection	5.0E+02	4.0E+01			6.2E+01		3.7E+01
BERYLLIUM	4.0E+00	Ecotoxicity	1.0E+03	4.0E+00			1.5E+02		(site-specific)
BIPHENYL, 1,1-	6.5E+00	Groundwater Protection	5.0E+02	-			3.0E+03	(Use soil gas)	6.5E+00
BIS(2-CHLOROETHYL)ETHER	6.7E-03	Indoor Air Impacts	5.0E+02	-			2.0E-01	6.7E-03	7.8E-01
BIS(2-CHLOROISOPROPYL)ETHER	6.6E-01	Groundwater Protection	5.0E+02	-			2.9E+00	(Use soil gas)	6.6E-01
BIS(2-ETHYLHEXYL)PHTHALATE	3.5E+01	Direct Exposure	5.0E+02	-			3.5E+01		7.8E+02
BORON	1.6E+00	Ecotoxicity	1.0E+02	1.6E+00			1.2E+04		(site-specific)
BROMODICHLOROMETHANE	2.3E-02	Indoor Air Impacts	1.0E+03	-			8.2E-01	2.3E-02	5.1E+00
BROMOFORM	6.1E+01	Direct Exposure	5.0E+02	-			6.1E+01		6.9E+01
BROMOMETHANE	8.6E-01	Indoor Air Impacts	5.0E+02	-			3.8E+00	8.6E-01	6.4E+00
CADMIUM	1.2E+01	Ecotoxicity	1.0E+03	1.2E+01			3.9E+01		(site-specific)
CARBON TETRACHLORIDE	2.7E-02	Indoor Air Impacts	5.0E+02	-			2.5E-01	2.7E-02	2.1E+00
CHLORDANE	1.6E+00	Direct Exposure	1.0E+03	-			1.6E+00		1.5E+01
CHLOROANILINE, p-	5.3E-02	Groundwater Protection	1.0E+03	-			2.4E+02		5.3E-02
CHLOROBENZENE	1.5E+00	Groundwater Protection	5.0E+02	3.0E+01			1.5E+02	1.0E+01	1.5E+00
CHLOROETHANE	2.7E-01	Groundwater Protection	5.0E+02	-			3.0E+00	5.0E-01	2.7E-01
CHLOROFORM	1.8E-02	Indoor Air Impacts	5.0E+02	-			2.2E-01	1.8E-02	1.8E+00
CHLOROMETHANE	1.6E+01	Indoor Air Impacts	1.0E+02	-			4.6E+01	1.6E+01	5.0E+02
CHLOROPHENOL, 2-	1.2E-01	Groundwater Protection	1.0E+02	1.0E+01			6.3E+01	3.4E+00	1.2E-01
CHROMIUM (Total)	2.1E+02	Direct Exposure	1.0E+03	-			2.1E+02		(site-specific)
CHROMIUM III	7.5E+02	Ecotoxicity	1.0E+03	7.5E+02			1.2E+05		(site-specific)
CHROMIUM VI	8.0E+00	Ecotoxicity	1.0E+03	8.0E+00			3.0E+01		(site-specific)
CHRYSENE	2.3E+01	Groundwater Protection	1.0E+03	4.0E+01			6.2E+02	(Use soil gas)	2.3E+01
COBALT	4.0E+01	Ecotoxicity	1.0E+03	4.0E+01			5.2E+02		(site-specific)
COPPER	2.3E+02	Ecotoxicity	1.0E+03	2.3E+02			3.1E+03		(site-specific)

**TABLE B-2. SOIL ACTION LEVELS**  
**(Potentially impacted groundwater IS NOT a current or potential drinking water resource;**  
**Surface water body IS located within 150m of release site)**

CONTAMINANT	(mg/kg)								
	Final SAL	Basis	Gross Contamination Ceiling Value (Odors, etc.)	<sup>2</sup> Urban Area Ecotoxicity Criteria	Other		<sup>1</sup> Human Health		Groundwater Protection (Soil Leaching)
			Table F-2		Value	Basis	Direct Exposure	Vapor Intrusion Concerns	NON-Drinking Water Resource
			Table F-2	Table L			Table I-1	Table C-1b	Table E-1
CYANIDE (Free)	1.0E+02	Ceiling Value	1.0E+02	-			1.2E+03	(Use soil gas)	1.2E+04
DIBENZO(a,h)ANTHTRACENE	6.2E-01	Direct Exposure	5.0E+02	-			6.2E-01		1.4E+02
DIBROMO-3-CHLOROPROPANE, 1,2-	9.0E-04	Groundwater Protection	5.0E+02	-			4.5E-01	(Use soil gas)	9.0E-04
DIBROMOCHLOROMETHANE	1.7E-02	Indoor Air Impacts	1.0E+02	-			1.1E+00	1.7E-02	1.3E+01
DIBROMOETHANE, 1,2-	7.2E-04	Indoor Air Impacts	5.0E+02	-			3.2E-02	7.2E-04	1.5E-01
DICHLOROBENZENE, 1,2-	1.6E+00	Groundwater Protection	6.0E+02	3.0E+01			6.0E+02	3.5E+01	1.6E+00
DICHLOROBENZENE, 1,3-	7.4E+00	Groundwater Protection	1.0E+02	3.0E+01			5.3E+02	(Use soil gas)	7.4E+00
DICHLOROBENZENE, 1,4-	6.5E-02	Indoor Air Impacts	5.0E+02	3.0E+01			3.4E+00	6.5E-02	1.8E+00
DICHLOROBENZIDINE, 3,3-	1.1E+00	Direct Exposure	5.0E+02	-			1.1E+00		6.6E+01
DICHLORODIPHENYLDICHLOROETHANE (DDD)	2.4E+00	Direct Exposure	5.0E+02	-			2.4E+00		7.5E+02
DICHLORODIPHENYLDICHLOROETHYLENE (DDE)	2.4E+00	Direct Exposure	5.0E+02	4.0E+00			2.4E+00		1.1E+03
DICHLORODIPHENYLTRICHLOROETHANE (DDT)	1.7E+00	Direct Exposure	1.0E+03	4.0E+00			1.7E+00		4.3E+00
DICHLOROETHANE, 1,1-	1.9E+00	Groundwater Protection	5.0E+02	-			4.9E+02	8.6E+01	1.9E+00
DICHLOROETHANE, 1,2-	1.6E-02	Indoor Air Impacts	5.0E+02	6.0E+01			2.7E-01	1.6E-02	1.2E+00
DICHLOROETHYLENE, 1,1-	4.3E+00	Groundwater Protection	5.0E+02	-			1.2E+02	3.5E+01	4.3E+00
DICHLOROETHYLENE, Cis 1,2-	6.2E+00	Indoor Air Impacts	1.0E+02	-			4.2E+01	6.2E+00	1.8E+01
DICHLOROETHYLENE, Trans 1,2-	1.2E+01	Indoor Air Impacts	5.0E+02	-			6.9E+01	1.2E+01	3.9E+01
DICHLOROPHENOL, 2,4-	3.0E+00	Groundwater Protection	5.0E+02	1.0E+01			1.8E+02		3.0E+00
DICHLOROPROPANE, 1,2-	2.1E-02	Indoor Air Impacts	1.0E+02	-			3.4E-01	2.1E-02	2.5E+00
DICHLOROPROPENE, 1,3-	1.0E-01	Indoor Air Impacts	5.0E+02	-			7.7E-01	1.0E-01	1.4E+01
DIELDRIN	2.3E-03	Groundwater Protection	1.0E+03	4.0E+00			3.0E-02		2.3E-03
DIETHYLPHTHALATE	3.5E-02	Groundwater Protection	5.0E+02	-			4.9E+04		3.5E-02
DIMETHYLPHENOL, 2,4-	7.3E-01	Groundwater Protection	1.0E+02	-			1.2E+03		7.3E-01
DIMETHYLPHTHALATE	3.5E-02	Groundwater Protection	5.0E+02	-			6.1E+05		3.5E-02
DINITROPHENOL, 2,4-	2.1E-01	Groundwater Protection	5.0E+02	-			1.2E+02		2.1E-01
DINITROTOLUENE, 2,4-	8.6E-01	Groundwater Protection	5.0E+02	-			1.2E+02		8.6E-01
DIOXANE, 1,4-	3.0E+01	Groundwater Protection	5.0E+02	-			4.4E+01		3.0E+01
DIOXIN (2,3,7,8-TCDD)	3.9E-06	Direct Exposure	NA	-			3.9E-06		1.0E+06
ENDOSULFAN	4.6E-03	Groundwater Protection	5.0E+02	-			3.7E+02		4.6E-03
ENDRIN	6.5E-04	Groundwater Protection	5.0E+02	6.0E-02			1.8E+01		6.5E-04
ETHYLBENZENE	3.2E+01	Groundwater Protection	4.0E+02	-			4.0E+02	3.9E+02	3.2E+01
FLUORANTHENE	4.0E+01	Ecotoxicity	5.0E+02	4.0E+01			2.3E+03		6.0E+01
FLUORENE	8.9E+00	Groundwater Protection	5.0E+02	-			2.7E+03	1.6E+02	8.9E+00
HEPTACHLOR	1.3E-02	Groundwater Protection	1.0E+03	-			1.1E-01		1.3E-02
HEPTACHLOR EPOXIDE	1.4E-02	Groundwater Protection	1.0E+03	-			5.3E-02		1.4E-02
HEXACHLOROBENZENE	3.0E-01	Direct Exposure	5.0E+02	3.0E+01			3.0E-01		7.9E+02
HEXACHLOROBUTADIENE	6.2E+00	Direct Exposure	5.0E+02	-			6.2E+00		2.3E+01
HEXACHLOROCYCLOHEXANE (gamma) LINDANE	4.9E-02	Groundwater Protection	5.0E+02	2.0E+00			4.4E-01		4.9E-02

**TABLE B-2. SOIL ACTION LEVELS**  
**(Potentially impacted groundwater IS NOT a current or potential drinking water resource;**  
**Surface water body IS located within 150m of release site)**

	(mg/kg)									
CONTAMINANT	Final SAL	Basis	Gross Contamination Ceiling Value (Odors, etc.)	<sup>2</sup> Urban Area Ecotoxicity Criteria	Other		<sup>1</sup> Human Health		Groundwater Protection (Soil Leaching)	
			Table F-2		Table L	Value	Basis	Direct Exposure	Vapor Intrusion Concerns	NON-Drinking Water Resource
								Table I-1	Table C-1b	Table E-1
HEXACHLOROETHANE	3.5E+01	Direct Exposure	5.0E+02	-			3.5E+01		4.1E+01	
INDENO(1,2,3-cd)PYRENE	6.2E+00	Direct Exposure	5.0E+02	4.0E+01			6.2E+00		2.4E+01	
LEAD	2.0E+02 (4.0E+02)	Ecotoxicity (Direct Exposure)	1.0E+03	2.0E+02			4.0E+02		(site-specific)	
MERCURY	1.0E+01	Ecotoxicity	5.0E+02	1.0E+01			1.3E+01		(site-specific)	
METHOXYCHLOR	1.9E+01	Groundwater Protection	5.0E+02	-			3.1E+02		1.9E+01	
METHYL ETHYL KETONE	1.3E+01	Groundwater Protection	5.0E+02	-			2.2E+04	1.9E+04	1.3E+01	
METHYL ISOBUTYL KETONE	3.9E+00	Groundwater Protection	1.0E+02	-			5.3E+03	1.7E+04	3.9E+00	
METHYL MERCURY	6.1E+00	Direct Exposure	1.0E+02	1.0E+01			6.1E+00		(site-specific)	
METHYL TERT BUTYL ETHER	1.6E+00	Indoor Air Impacts	1.0E+02	-			3.1E+01	1.6E+00	8.4E+00	
METHYLENE CHLORIDE	9.0E-01	Indoor Air Impacts	5.0E+02	-			9.2E+00	9.0E-01	3.4E+01	
METHYLNAPHTHALENE (total 1- & 2-)	2.5E-01	Groundwater Protection	5.0E+02	-			1.4E+03	1.1E+02	2.5E-01	
MOLYBDENUM	4.0E+01	Ecotoxicity	1.0E+03	4.0E+01			3.9E+02		(site-specific)	
NAPHTHALENE	4.8E+00	Groundwater Protection	5.0E+02	4.0E+01			5.5E+01	1.8E+01	4.8E+00	
NICKEL	1.5E+02	Ecotoxicity	1.0E+03	1.5E+02			1.6E+03		(site-specific)	
PENTACHLOROPHENOL	3.0E+00	Direct Exposure	5.0E+02	5.0E+00			3.0E+00		1.0E+06	
PERCHLORATE	1.2E+00	Groundwater Protection	1.0E+03	-			7.8E+00		1.2E+00	
PHENANTHRENE	1.1E+01	Groundwater Protection	5.0E+02	4.0E+01			2.8E+03	(Use soil gas)	1.1E+01	
PHENOL	1.9E+01	Groundwater Protection	5.0E+02	4.0E+01			1.8E+04		1.9E+01	
POLYCHLORINATED BIPHENYLS (PCBs)	1.1E+00	Direct Exposure	5.0E+02	-			1.1E+00		6.3E+00	
PYRENE	8.5E+01	Indoor Air Impacts	5.0E+02	-			2.3E+03	8.5E+01	8.5E+01	
SELENIUM	1.0E+01	Ecotoxicity	1.0E+03	1.0E+01			3.9E+02		(site-specific)	
SILVER	2.0E+01	Ecotoxicity	1.0E+03	2.0E+01			3.9E+02		(site-specific)	
STYRENE	1.5E+01	Groundwater Protection	5.0E+02	-			1.5E+03	1.5E+03	1.5E+01	
tert-BUTYL ALCOHOL	7.0E+01	Direct Exposure	1.0E+02	-			7.0E+01	(Use soil gas)	1.1E+02	
TETRACHLOROETHANE, 1,1,1,2-	3.1E+00	Direct Exposure	1.0E+02	-			3.1E+00	(Use soil gas)	5.5E+00	
TETRACHLOROETHANE, 1,1,2,2-	7.2E-03	Indoor Air Impacts	5.0E+02	-			4.1E-01	7.2E-03	2.7E+00	
TETRACHLOROETHYLENE	6.9E-02	Indoor Air Impacts	2.3E+02	-			4.8E-01	6.9E-02	1.4E+01	
THALLIUM	5.2E+00	Direct Exposure	1.0E+03	-			5.2E+00		(site-specific)	
TOLUENE	9.3E+00	Groundwater Protection	5.0E+02	-			6.5E+02	6.5E+02	9.3E+00	
TOXAPHENE	4.2E-04	Groundwater Protection	5.0E+02	-			4.0E-01		4.2E-04	
TPH (gasolines)	1.0E+02 (2.0E+03)	Ceiling Value (Leaching)	1.0E+02	-			8.0E+02	(Use soil gas)	2.0E+03	
TPH (middle distillates)	5.0E+02 (5.0E+03)	Ceiling Value (Leaching)	5.0E+02	-			8.0E+02	(Use soil gas)	5.0E+03	
TPH (residual fuels)	5.0E+02 (5.0E+03)	Ceiling Value (Leaching)	5.0E+02	-			2.3E+03		5.0E+03	
TRICHLOROBENZENE, 1,2,4-	1.6E+00	Indoor Air Impacts	5.0E+02	3.0E+01			6.1E+01	1.6E+00	7.6E+00	
TRICHLOROETHANE, 1,1,1-	7.8E+00	Groundwater Protection	5.0E+02	-			1.2E+03	3.9E+02	7.8E+00	
TRICHLOROETHANE, 1,1,2-	2.6E-02	Indoor Air Impacts	1.0E+02	-			7.2E-01	2.6E-02	3.9E+00	
TRICHLOROETHYLENE	3.6E-02	Indoor Air Impacts	5.0E+02	6.0E+01			5.2E-01	3.6E-02	6.8E+00	
TRICHLOROPHENOL, 2,4,5-	1.8E-01	Groundwater Protection	1.0E+02	1.0E+01			2.5E+03	9.5E+01	1.8E-01	

**TABLE B-2. SOIL ACTION LEVELS**  
**(Potentially impacted groundwater IS NOT a current or potential drinking water resource;**  
**Surface water body IS located within 150m of release site)**

CONTAMINANT	(mg/kg)								
	Final SAL	Basis	Gross Contamination Ceiling Value (Odors, etc.)	<sup>2</sup> Urban Area Ecotoxicity Criteria	Other		<sup>1</sup> Human Health		Groundwater Protection (Soil Leaching)
			Table F-2		Value	Basis	Direct Exposure	Vapor Intrusion Concerns	NON-Drinking Water Resource
				Table L			Table I-1	Table C-1b	Table E-1
TRICHLOROPHENOL, 2,4,6-	6.1E+00	Direct Exposure	5.0E+02	1.0E+01			6.1E+00		1.6E+02
VANADIUM	7.8E+01	Direct Exposure	1.0E+03	2.0E+02			7.8E+01		(site-specific)
VINYL CHLORIDE	3.9E-02	Indoor Air Impacts	5.0E+02	6.0E+01			1.5E-01	3.9E-02	3.8E+00
XYLENES	1.1E+01	Groundwater Protection	4.2E+02	-			2.7E+02	1.8E+02	1.1E+01
ZINC	6.0E+02	Ecotoxicity	1.0E+03	6.0E+02			2.3E+04		(site-specific)
Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD)	2.0		-	-			-	-	-
Sodium Adsorption Ratio	5.0		-	-			-	-	-
<b>Notes:</b> 1. Assumes current or future residential land use. 2. Based primarily on phytotoxicity. Included in selection of final soil action levels if less than one-half of the residential soil screening level for human-health, direct-exposure concerns (see Table L and Section 3.9 in text).  Final Soil Action Level is lowest of ceiling value (nuisance concerns etc.), ecotoxicity, direct-exposure, indoor-air impact, and leaching action levels. Assumes soil pH 5.0 to 9.0. Soil data should be reported on dry-weight basis (see Section 6.2). TPH -Total Petroleum Hydrocarbons. See text for discussion of different TPH categories. Use of leaching based action levels noted in parentheses may be appropriate for deep or otherwise isolated soils that do not threaten a drinking water resource or sensitive aquatic habitat. Refer to Section 2.2.2 in Volume 1. Background arsenic in soils - assumed maximum (refer to Section 6.1 in text).									

APPENDIX 2 – LABORATORY RESULTS

June 02, 2006

(b) (6)

Parsons  
1132 Bishop Street, Suite 2102  
Honolulu, HI 96813  
TEL: (808) 258-1900  
FAX: (808) 748-7575

RE: Forest City, 442221 04000

Work Order No.: 0605135

Dear (b) (6)

Oceanic Analytical Laboratory, Inc. received/relogged 10 samples on 5/24/2006 12:00 PM for the analyses presented in the following report.

The total number of pages in the report including this Coverletter, Sample Summary, Case Narrative, Result Summary, QC Summary, Chain of Custody form(s), Relog Request Form and/or any attachment(s) is 30.

All data presented in the following report are relevant only to the samples as received and to the items tested by the laboratory. All data are calculated based on wet weight except where noted in the reporting unit. The report meets all applicable NELAC standards and shall not be reproduced except in full, without the written approval of the laboratory.

There were no problems with the analyses and all data for associated QC met laboratory specifications except where noted in the Case Narrative.

Applicable samples will be stored at no extra charge for a period of 30 days following the final report. Samples will be properly disposed of after 30 days, unless notified otherwise in writing.

If you have any questions regarding these tests results, please feel free to call.

Very truly yours,  
OCEANIC ANALYTICAL LABORATORY, INC.

(b) (6)

(b) (6)

Laboratory Director

**Work Order Sample Summary**

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**Client:** Parsons  
**Project:** Forest City, 442221 04000  
**Work Order:** 0605135  
**Date Received:** 5/24/2006

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**Analytical Report for Samples**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Collection Date</b>	<b>Sample On Hold</b>
0605135-01A	FI-B8-7	05/23/2006 08:20	<input type="checkbox"/>
0605135-02A	FI-B9-7	05/23/2006 08:54	<input type="checkbox"/>
0605135-03A	FI-B10-5	05/23/2006 09:30	<input type="checkbox"/>
0605135-04A	FI-B3-10	05/23/2006 10:40	<input type="checkbox"/>
0605135-05A	FI-B2-5	05/23/2006 14:20	<input type="checkbox"/>
0605135-06A	FI-B1-7	05/23/2006 14:45	<input type="checkbox"/>
0605135-07A	FI-B4-3	05/23/2006 15:15	<input type="checkbox"/>
0605135-08A	FI-B6-2	05/23/2006 15:50	<input type="checkbox"/>
0605135-09A	FI-B7-8	05/23/2006 16:30	<input type="checkbox"/>
0605135-10A	FI-B5-1	05/23/2006 17:00	<input type="checkbox"/>

**Case Narrative**

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<b>Client:</b>	Parsons
<b>Project:</b>	Forest City, 442221 04000
<b>Work Order:</b>	0605135

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Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition.

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Q02: The spike recovery/RPD for this QC sample is outside of established control limits due to sample matrix interference.

Q04: The recovery for this compound is outside of control limits. Results should be considered biased according to the spike result. The batch is within control by NELAC standards.

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B8-7
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 8:20
<b>Lab ID:</b>	0605135-01A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0109	mg/Kg	1	5/30/06	5/30/2006 12:36:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0109	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0109	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0109	mg/Kg	1				
1,1-Dichloroethane	ND	0.0543	mg/Kg	1				
1,1-Dichloroethene	ND	0.0109	mg/Kg	1				
1,1-Dichloropropene	ND	0.0109	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0109	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0109	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0543	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0109	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0109	mg/Kg	1				
1,2-Dibromoethane	ND	0.0109	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0543	mg/Kg	1				
1,2-Dichloroethane	ND	0.0109	mg/Kg	1				
1,2-Dichloropropane	ND	0.0109	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0109	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0543	mg/Kg	1				
1,3-Dichloropropane	ND	0.0109	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0543	mg/Kg	1				
2,2-Dichloropropane	ND	0.0109	mg/Kg	1				
2-Butanone	ND	0.0543	mg/Kg	1				
2-Chlorotoluene	ND	0.0109	mg/Kg	1				
2-Hexanone	ND	0.0543	mg/Kg	1				
4-Chlorotoluene	ND	0.0109	mg/Kg	1				
4-Isopropyltoluene	ND	0.0109	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0543	mg/Kg	1				
Acetone	ND	0.0543	mg/Kg	1				
Acrylonitrile	ND	0.0543	mg/Kg	1				
Benzene	ND	0.0109	mg/Kg	1				
Bromobenzene	ND	0.0109	mg/Kg	1				
Bromochloromethane	ND	0.0543	mg/Kg	1				
Bromodichloromethane	ND	0.0109	mg/Kg	1				
Bromoform	ND	0.0109	mg/Kg	1				
Bromomethane	ND	0.109	mg/Kg	1				
Carbon disulfide	ND	0.0109	mg/Kg	1				
Carbon tetrachloride	ND	0.0109	mg/Kg	1				
Chlorobenzene	ND	0.0109	mg/Kg	1				
Chloroethane	ND	0.0543	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B8-7
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 8:20
<b>Lab ID:</b>	0605135-01A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0109	mg/Kg	1				
Chloromethane	ND	0.0543	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0109	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0109	mg/Kg	1				
Dibromochloromethane	ND	0.0109	mg/Kg	1				
Dibromomethane	ND	0.0109	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0543	mg/Kg	1				
Ethylbenzene	ND	0.0109	mg/Kg	1				
Hexachlorobutadiene	ND	0.0543	mg/Kg	1				
Iodomethane	ND	0.0543	mg/Kg	1				
Isopropylbenzene	ND	0.0109	mg/Kg	1				
m,p-Xylene	ND	0.0109	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00543	mg/Kg	1				
Methylene chloride	ND	0.0543	mg/Kg	1				
n-Butylbenzene	ND	0.0109	mg/Kg	1				
n-Propylbenzene	ND	0.0109	mg/Kg	1				
Naphthalene	ND	0.0543	mg/Kg	1				
o-Xylene	ND	0.0109	mg/Kg	1				
sec-Butylbenzene	ND	0.0109	mg/Kg	1				
Styrene	ND	0.0109	mg/Kg	1				
tert-Butylbenzene	ND	0.0109	mg/Kg	1				
Tetrachloroethene	ND	0.0109	mg/Kg	1				
Toluene	ND	0.0109	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0109	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0109	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0543	mg/Kg	1				
Trichloroethene	ND	0.0109	mg/Kg	1				
Trichlorofluoromethane	ND	0.0109	mg/Kg	1				
Vinyl acetate	ND	0.0543	mg/Kg	1				
Vinyl chloride	ND	0.0543	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	102	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	91.3	72.1-156	%REC	1				
Surr: Dibromofluoromethane	96.3	63.2-149	%REC	1				
Surr: Toluene-d8	95.0	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B9-7
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 8:54
<b>Lab ID:</b>	0605135-02A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0102	mg/Kg	1	5/30/06	5/30/2006 1:17:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0102	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0102	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0102	mg/Kg	1				
1,1-Dichloroethane	ND	0.0509	mg/Kg	1				
1,1-Dichloroethene	ND	0.0102	mg/Kg	1				
1,1-Dichloropropene	ND	0.0102	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0102	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0102	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0509	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0102	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0102	mg/Kg	1				
1,2-Dibromoethane	ND	0.0102	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0509	mg/Kg	1				
1,2-Dichloroethane	ND	0.0102	mg/Kg	1				
1,2-Dichloropropane	ND	0.0102	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0102	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0509	mg/Kg	1				
1,3-Dichloropropane	ND	0.0102	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0509	mg/Kg	1				
2,2-Dichloropropane	ND	0.0102	mg/Kg	1				
2-Butanone	ND	0.0509	mg/Kg	1				
2-Chlorotoluene	ND	0.0102	mg/Kg	1				
2-Hexanone	ND	0.0509	mg/Kg	1				
4-Chlorotoluene	ND	0.0102	mg/Kg	1				
4-Isopropyltoluene	ND	0.0102	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0509	mg/Kg	1				
Acetone	ND	0.0509	mg/Kg	1				
Acrylonitrile	ND	0.0509	mg/Kg	1				
Benzene	ND	0.0102	mg/Kg	1				
Bromobenzene	ND	0.0102	mg/Kg	1				
Bromochloromethane	ND	0.0509	mg/Kg	1				
Bromodichloromethane	ND	0.0102	mg/Kg	1				
Bromoform	ND	0.0102	mg/Kg	1				
Bromomethane	ND	0.102	mg/Kg	1				
Carbon disulfide	ND	0.0102	mg/Kg	1				
Carbon tetrachloride	ND	0.0102	mg/Kg	1				
Chlorobenzene	ND	0.0102	mg/Kg	1				
Chloroethane	ND	0.0509	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B9-7
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 8:54
<b>Lab ID:</b>	0605135-02A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0102	mg/Kg	1				
Chloromethane	ND	0.0509	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0102	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0102	mg/Kg	1				
Dibromochloromethane	ND	0.0102	mg/Kg	1				
Dibromomethane	ND	0.0102	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0509	mg/Kg	1				
Ethylbenzene	ND	0.0102	mg/Kg	1				
Hexachlorobutadiene	ND	0.0509	mg/Kg	1				
Iodomethane	ND	0.0509	mg/Kg	1				
Isopropylbenzene	ND	0.0102	mg/Kg	1				
m,p-Xylene	ND	0.0102	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00509	mg/Kg	1				
Methylene chloride	ND	0.0509	mg/Kg	1				
n-Butylbenzene	ND	0.0102	mg/Kg	1				
n-Propylbenzene	ND	0.0102	mg/Kg	1				
Naphthalene	ND	0.0509	mg/Kg	1				
o-Xylene	ND	0.0102	mg/Kg	1				
sec-Butylbenzene	ND	0.0102	mg/Kg	1				
Styrene	ND	0.0102	mg/Kg	1				
tert-Butylbenzene	ND	0.0102	mg/Kg	1				
Tetrachloroethene	ND	0.0102	mg/Kg	1				
Toluene	ND	0.0102	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0102	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0102	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0509	mg/Kg	1				
Trichloroethene	ND	0.0102	mg/Kg	1				
Trichlorofluoromethane	ND	0.0102	mg/Kg	1				
Vinyl acetate	ND	0.0509	mg/Kg	1				
Vinyl chloride	ND	0.0509	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	100	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	92.0	72.1-156	%REC	1				
Surr: Dibromofluoromethane	91.9	63.2-149	%REC	1				
Surr: Toluene-d8	97.8	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B10-5
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 9:30
<b>Lab ID:</b>	0605135-03A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0118	mg/Kg	1	5/30/06	5/30/2006 1:58:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0118	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0118	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0118	mg/Kg	1				
1,1-Dichloroethane	ND	0.0591	mg/Kg	1				
1,1-Dichloroethene	ND	0.0118	mg/Kg	1				
1,1-Dichloropropene	ND	0.0118	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0118	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0118	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0591	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0118	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0118	mg/Kg	1				
1,2-Dibromoethane	ND	0.0118	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0591	mg/Kg	1				
1,2-Dichloroethane	ND	0.0118	mg/Kg	1				
1,2-Dichloropropane	ND	0.0118	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0118	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0591	mg/Kg	1				
1,3-Dichloropropane	ND	0.0118	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0591	mg/Kg	1				
2,2-Dichloropropane	ND	0.0118	mg/Kg	1				
2-Butanone	ND	0.0591	mg/Kg	1				
2-Chlorotoluene	ND	0.0118	mg/Kg	1				
2-Hexanone	ND	0.0591	mg/Kg	1				
4-Chlorotoluene	ND	0.0118	mg/Kg	1				
4-Isopropyltoluene	ND	0.0118	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0591	mg/Kg	1				
Acetone	ND	0.0591	mg/Kg	1				
Acrylonitrile	ND	0.0591	mg/Kg	1				
Benzene	ND	0.0118	mg/Kg	1				
Bromobenzene	ND	0.0118	mg/Kg	1				
Bromochloromethane	ND	0.0591	mg/Kg	1				
Bromodichloromethane	ND	0.0118	mg/Kg	1				
Bromoform	ND	0.0118	mg/Kg	1				
Bromomethane	ND	0.118	mg/Kg	1				
Carbon disulfide	ND	0.0118	mg/Kg	1				
Carbon tetrachloride	ND	0.0118	mg/Kg	1				
Chlorobenzene	ND	0.0118	mg/Kg	1				
Chloroethane	ND	0.0591	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B10-5
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 9:30
<b>Lab ID:</b>	0605135-03A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0118	mg/Kg	1				
Chloromethane	ND	0.0591	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0118	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0118	mg/Kg	1				
Dibromochloromethane	ND	0.0118	mg/Kg	1				
Dibromomethane	ND	0.0118	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0591	mg/Kg	1				
Ethylbenzene	ND	0.0118	mg/Kg	1				
Hexachlorobutadiene	ND	0.0591	mg/Kg	1				
Iodomethane	ND	0.0591	mg/Kg	1				
Isopropylbenzene	ND	0.0118	mg/Kg	1				
m,p-Xylene	ND	0.0118	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00591	mg/Kg	1				
Methylene chloride	ND	0.0591	mg/Kg	1				
n-Butylbenzene	ND	0.0118	mg/Kg	1				
n-Propylbenzene	ND	0.0118	mg/Kg	1				
Naphthalene	ND	0.0591	mg/Kg	1				
o-Xylene	ND	0.0118	mg/Kg	1				
sec-Butylbenzene	ND	0.0118	mg/Kg	1				
Styrene	ND	0.0118	mg/Kg	1				
tert-Butylbenzene	ND	0.0118	mg/Kg	1				
Tetrachloroethene	ND	0.0118	mg/Kg	1				
Toluene	ND	0.0118	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0118	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0118	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0591	mg/Kg	1				
Trichloroethene	ND	0.0118	mg/Kg	1				
Trichlorofluoromethane	ND	0.0118	mg/Kg	1				
Vinyl acetate	ND	0.0591	mg/Kg	1				
Vinyl chloride	ND	0.0591	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	98.7	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	88.1	72.1-156	%REC	1				
Surr: Dibromofluoromethane	90.5	63.2-149	%REC	1				
Surr: Toluene-d8	93.9	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000  
**Lab ID:** 0605135-04A

**Client Sample ID:** FI-B3-10  
**Tag Number:**  
**Collection Date:** 05/23/2006 10:40  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0103	mg/Kg	1	5/30/06	5/30/2006 2:38:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0103	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0103	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0103	mg/Kg	1				
1,1-Dichloroethane	ND	0.0515	mg/Kg	1				
1,1-Dichloroethene	ND	0.0103	mg/Kg	1				
1,1-Dichloropropene	ND	0.0103	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0103	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0103	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0515	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0103	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0103	mg/Kg	1				
1,2-Dibromoethane	ND	0.0103	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0515	mg/Kg	1				
1,2-Dichloroethane	ND	0.0103	mg/Kg	1				
1,2-Dichloropropane	ND	0.0103	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0103	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0515	mg/Kg	1				
1,3-Dichloropropane	ND	0.0103	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0515	mg/Kg	1				
2,2-Dichloropropane	ND	0.0103	mg/Kg	1				
2-Butanone	ND	0.0515	mg/Kg	1				
2-Chlorotoluene	ND	0.0103	mg/Kg	1				
2-Hexanone	ND	0.0515	mg/Kg	1				
4-Chlorotoluene	ND	0.0103	mg/Kg	1				
4-Isopropyltoluene	ND	0.0103	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0515	mg/Kg	1				
Acetone	ND	0.0515	mg/Kg	1				
Acrylonitrile	ND	0.0515	mg/Kg	1				
Benzene	ND	0.0103	mg/Kg	1				
Bromobenzene	ND	0.0103	mg/Kg	1				
Bromochloromethane	ND	0.0515	mg/Kg	1				
Bromodichloromethane	ND	0.0103	mg/Kg	1				
Bromoform	ND	0.0103	mg/Kg	1				
Bromomethane	ND	0.103	mg/Kg	1				
Carbon disulfide	ND	0.0103	mg/Kg	1				
Carbon tetrachloride	ND	0.0103	mg/Kg	1				
Chlorobenzene	ND	0.0103	mg/Kg	1				
Chloroethane	ND	0.0515	mg/Kg	1				

**Qualifiers** ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits  
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank E - Value above quantitation range  
\* - Value exceeds Maximum Contaminant Level

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B3-10
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 10:40
<b>Lab ID:</b>	0605135-04A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0103	mg/Kg	1				
Chloromethane	ND	0.0515	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0103	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0103	mg/Kg	1				
Dibromochloromethane	ND	0.0103	mg/Kg	1				
Dibromomethane	ND	0.0103	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0515	mg/Kg	1				
Ethylbenzene	ND	0.0103	mg/Kg	1				
Hexachlorobutadiene	ND	0.0515	mg/Kg	1				
Iodomethane	ND	0.0515	mg/Kg	1				
Isopropylbenzene	ND	0.0103	mg/Kg	1				
m,p-Xylene	ND	0.0103	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00515	mg/Kg	1				
Methylene chloride	ND	0.0515	mg/Kg	1				
n-Butylbenzene	ND	0.0103	mg/Kg	1				
n-Propylbenzene	ND	0.0103	mg/Kg	1				
Naphthalene	ND	0.0515	mg/Kg	1				
o-Xylene	ND	0.0103	mg/Kg	1				
sec-Butylbenzene	ND	0.0103	mg/Kg	1				
Styrene	ND	0.0103	mg/Kg	1				
tert-Butylbenzene	ND	0.0103	mg/Kg	1				
Tetrachloroethene	ND	0.0103	mg/Kg	1				
Toluene	ND	0.0103	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0103	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0103	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0515	mg/Kg	1				
Trichloroethene	ND	0.0103	mg/Kg	1				
Trichlorofluoromethane	ND	0.0103	mg/Kg	1				
Vinyl acetate	ND	0.0515	mg/Kg	1				
Vinyl chloride	ND	0.0515	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	103	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	85.3	72.1-156	%REC	1				
Surr: Dibromofluoromethane	94.9	63.2-149	%REC	1				
Surr: Toluene-d8	95.9	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B2-5
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 14:20
<b>Lab ID:</b>	0605135-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0113	mg/Kg	1	5/30/06	5/30/2006 3:19:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0113	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0113	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0113	mg/Kg	1				
1,1-Dichloroethane	ND	0.0563	mg/Kg	1				
1,1-Dichloroethene	ND	0.0113	mg/Kg	1				
1,1-Dichloropropene	ND	0.0113	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0113	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0113	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0563	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0113	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0113	mg/Kg	1				
1,2-Dibromoethane	ND	0.0113	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0563	mg/Kg	1				
1,2-Dichloroethane	ND	0.0113	mg/Kg	1				
1,2-Dichloropropane	ND	0.0113	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0113	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0563	mg/Kg	1				
1,3-Dichloropropane	ND	0.0113	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0563	mg/Kg	1				
2,2-Dichloropropane	ND	0.0113	mg/Kg	1				
2-Butanone	ND	0.0563	mg/Kg	1				
2-Chlorotoluene	ND	0.0113	mg/Kg	1				
2-Hexanone	ND	0.0563	mg/Kg	1				
4-Chlorotoluene	ND	0.0113	mg/Kg	1				
4-Isopropyltoluene	ND	0.0113	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0563	mg/Kg	1				
Acetone	ND	0.0563	mg/Kg	1				
Acrylonitrile	ND	0.0563	mg/Kg	1				
Benzene	ND	0.0113	mg/Kg	1				
Bromobenzene	ND	0.0113	mg/Kg	1				
Bromochloromethane	ND	0.0563	mg/Kg	1				
Bromodichloromethane	ND	0.0113	mg/Kg	1				
Bromoform	ND	0.0113	mg/Kg	1				
Bromomethane	ND	0.113	mg/Kg	1				
Carbon disulfide	ND	0.0113	mg/Kg	1				
Carbon tetrachloride	ND	0.0113	mg/Kg	1				
Chlorobenzene	ND	0.0113	mg/Kg	1				
Chloroethane	ND	0.0563	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B2-5
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 14:20
<b>Lab ID:</b>	0605135-05A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0113	mg/Kg	1				
Chloromethane	ND	0.0563	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0113	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0113	mg/Kg	1				
Dibromochloromethane	ND	0.0113	mg/Kg	1				
Dibromomethane	ND	0.0113	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0563	mg/Kg	1				
Ethylbenzene	ND	0.0113	mg/Kg	1				
Hexachlorobutadiene	ND	0.0563	mg/Kg	1				
Iodomethane	ND	0.0563	mg/Kg	1				
Isopropylbenzene	ND	0.0113	mg/Kg	1				
m,p-Xylene	ND	0.0113	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00563	mg/Kg	1				
Methylene chloride	ND	0.0563	mg/Kg	1				
n-Butylbenzene	ND	0.0113	mg/Kg	1				
n-Propylbenzene	ND	0.0113	mg/Kg	1				
Naphthalene	ND	0.0563	mg/Kg	1				
o-Xylene	ND	0.0113	mg/Kg	1				
sec-Butylbenzene	ND	0.0113	mg/Kg	1				
Styrene	ND	0.0113	mg/Kg	1				
tert-Butylbenzene	ND	0.0113	mg/Kg	1				
Tetrachloroethene	ND	0.0113	mg/Kg	1				
Toluene	ND	0.0113	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0113	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0113	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0563	mg/Kg	1				
Trichloroethene	ND	0.0113	mg/Kg	1				
Trichlorofluoromethane	ND	0.0113	mg/Kg	1				
Vinyl acetate	ND	0.0563	mg/Kg	1				
Vinyl chloride	ND	0.0563	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	94.5	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	90.7	72.1-156	%REC	1				
Surr: Dibromofluoromethane	90.2	63.2-149	%REC	1				
Surr: Toluene-d8	93.6	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000  
**Lab ID:** 0605135-06A

**Client Sample ID:** FI-B1-7  
**Tag Number:**  
**Collection Date:** 05/23/2006 14:45  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0121	mg/Kg	1	5/30/06	5/30/2006 3:59:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0121	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0121	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0121	mg/Kg	1				
1,1-Dichloroethane	ND	0.0607	mg/Kg	1				
1,1-Dichloroethene	ND	0.0121	mg/Kg	1				
1,1-Dichloropropene	ND	0.0121	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0121	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0121	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0607	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0121	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0121	mg/Kg	1				
1,2-Dibromoethane	ND	0.0121	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0607	mg/Kg	1				
1,2-Dichloroethane	ND	0.0121	mg/Kg	1				
1,2-Dichloropropane	ND	0.0121	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0121	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0607	mg/Kg	1				
1,3-Dichloropropane	ND	0.0121	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0607	mg/Kg	1				
2,2-Dichloropropane	ND	0.0121	mg/Kg	1				
2-Butanone	ND	0.0607	mg/Kg	1				
2-Chlorotoluene	ND	0.0121	mg/Kg	1				
2-Hexanone	ND	0.0607	mg/Kg	1				
4-Chlorotoluene	ND	0.0121	mg/Kg	1				
4-Isopropyltoluene	ND	0.0121	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0607	mg/Kg	1				
Acetone	ND	0.0607	mg/Kg	1				
Acrylonitrile	ND	0.0607	mg/Kg	1				
Benzene	ND	0.0121	mg/Kg	1				
Bromobenzene	ND	0.0121	mg/Kg	1				
Bromochloromethane	ND	0.0607	mg/Kg	1				
Bromodichloromethane	ND	0.0121	mg/Kg	1				
Bromoform	ND	0.0121	mg/Kg	1				
Bromomethane	ND	0.121	mg/Kg	1				
Carbon disulfide	ND	0.0121	mg/Kg	1				
Carbon tetrachloride	ND	0.0121	mg/Kg	1				
Chlorobenzene	ND	0.0121	mg/Kg	1				
Chloroethane	ND	0.0607	mg/Kg	1				

**Qualifiers** ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits  
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank E - Value above quantitation range  
\* - Value exceeds Maximum Contaminant Level

Result Summary

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000  
**Lab ID:** 0605135-06A

**Client Sample ID:** FI-B1-7  
**Tag Number:**  
**Collection Date:** 05/23/2006 14:45  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0121	mg/Kg	1				
Chloromethane	ND	0.0607	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0121	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0121	mg/Kg	1				
Dibromochloromethane	ND	0.0121	mg/Kg	1				
Dibromomethane	ND	0.0121	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0607	mg/Kg	1				
Ethylbenzene	ND	0.0121	mg/Kg	1				
Hexachlorobutadiene	ND	0.0607	mg/Kg	1				
Iodomethane	ND	0.0607	mg/Kg	1				
Isopropylbenzene	ND	0.0121	mg/Kg	1				
m,p-Xylene	ND	0.0121	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00607	mg/Kg	1				
Methylene chloride	ND	0.0607	mg/Kg	1				
n-Butylbenzene	ND	0.0121	mg/Kg	1				
n-Propylbenzene	ND	0.0121	mg/Kg	1				
Naphthalene	ND	0.0607	mg/Kg	1				
o-Xylene	ND	0.0121	mg/Kg	1				
sec-Butylbenzene	ND	0.0121	mg/Kg	1				
Styrene	ND	0.0121	mg/Kg	1				
tert-Butylbenzene	ND	0.0121	mg/Kg	1				
Tetrachloroethene	ND	0.0121	mg/Kg	1				
Toluene	ND	0.0121	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0121	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0121	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0607	mg/Kg	1				
Trichloroethene	ND	0.0121	mg/Kg	1				
Trichlorofluoromethane	ND	0.0121	mg/Kg	1				
Vinyl acetate	ND	0.0607	mg/Kg	1				
Vinyl chloride	ND	0.0607	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	99.4	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	87.4	72.1-156	%REC	1				
Surr: Dibromofluoromethane	95.8	63.2-149	%REC	1				
Surr: Toluene-d8	96.7	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B4-3
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 15:15
<b>Lab ID:</b>	0605135-07A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.0104	mg/Kg	1	5/30/06	5/30/2006 4:40:00 PM	13555	
1,1,1-Trichloroethane	ND	0.0104	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.0104	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.0104	mg/Kg	1				
1,1-Dichloroethane	ND	0.0521	mg/Kg	1				
1,1-Dichloroethene	ND	0.0104	mg/Kg	1				
1,1-Dichloropropene	ND	0.0104	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.0104	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.0104	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0521	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.0104	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.0104	mg/Kg	1				
1,2-Dibromoethane	ND	0.0104	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0521	mg/Kg	1				
1,2-Dichloroethane	ND	0.0104	mg/Kg	1				
1,2-Dichloropropane	ND	0.0104	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.0104	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0521	mg/Kg	1				
1,3-Dichloropropane	ND	0.0104	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0521	mg/Kg	1				
2,2-Dichloropropane	ND	0.0104	mg/Kg	1				
2-Butanone	ND	0.0521	mg/Kg	1				
2-Chlorotoluene	ND	0.0104	mg/Kg	1				
2-Hexanone	ND	0.0521	mg/Kg	1				
4-Chlorotoluene	ND	0.0104	mg/Kg	1				
4-Isopropyltoluene	ND	0.0104	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0521	mg/Kg	1				
Acetone	ND	0.0521	mg/Kg	1				
Acrylonitrile	ND	0.0521	mg/Kg	1				
Benzene	ND	0.0104	mg/Kg	1				
Bromobenzene	ND	0.0104	mg/Kg	1				
Bromochloromethane	ND	0.0521	mg/Kg	1				
Bromodichloromethane	ND	0.0104	mg/Kg	1				
Bromoform	ND	0.0104	mg/Kg	1				
Bromomethane	ND	0.104	mg/Kg	1				
Carbon disulfide	ND	0.0104	mg/Kg	1				
Carbon tetrachloride	ND	0.0104	mg/Kg	1				
Chlorobenzene	ND	0.0104	mg/Kg	1				
Chloroethane	ND	0.0521	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000  
**Lab ID:** 0605135-07A

**Client Sample ID:** FI-B4-3  
**Tag Number:**  
**Collection Date:** 05/23/2006 15:15  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.0104	mg/Kg	1				
Chloromethane	ND	0.0521	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.0104	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.0104	mg/Kg	1				
Dibromochloromethane	ND	0.0104	mg/Kg	1				
Dibromomethane	ND	0.0104	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0521	mg/Kg	1				
Ethylbenzene	ND	0.0104	mg/Kg	1				
Hexachlorobutadiene	ND	0.0521	mg/Kg	1				
Iodomethane	ND	0.0521	mg/Kg	1				
Isopropylbenzene	ND	0.0104	mg/Kg	1				
m,p-Xylene	ND	0.0104	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00521	mg/Kg	1				
Methylene chloride	ND	0.0521	mg/Kg	1				
n-Butylbenzene	ND	0.0104	mg/Kg	1				
n-Propylbenzene	ND	0.0104	mg/Kg	1				
Naphthalene	ND	0.0521	mg/Kg	1				
o-Xylene	ND	0.0104	mg/Kg	1				
sec-Butylbenzene	ND	0.0104	mg/Kg	1				
Styrene	ND	0.0104	mg/Kg	1				
tert-Butylbenzene	ND	0.0104	mg/Kg	1				
Tetrachloroethene	ND	0.0104	mg/Kg	1				
Toluene	ND	0.0104	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.0104	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.0104	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0521	mg/Kg	1				
Trichloroethene	ND	0.0104	mg/Kg	1				
Trichlorofluoromethane	ND	0.0104	mg/Kg	1				
Vinyl acetate	ND	0.0521	mg/Kg	1				
Vinyl chloride	ND	0.0521	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	103	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	87.6	72.1-156	%REC	1				
Surr: Dibromofluoromethane	93.2	63.2-149	%REC	1				
Surr: Toluene-d8	94.9	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B6-2
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 15:50
<b>Lab ID:</b>	0605135-08A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.00907	mg/Kg	1	5/30/06	5/30/2006 5:20:00 PM	13555	
1,1,1-Trichloroethane	ND	0.00907	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.00907	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.00907	mg/Kg	1				
1,1-Dichloroethane	ND	0.0454	mg/Kg	1				
1,1-Dichloroethene	ND	0.00907	mg/Kg	1				
1,1-Dichloropropene	ND	0.00907	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.00907	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.00907	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0454	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.00907	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.00907	mg/Kg	1				
1,2-Dibromoethane	ND	0.00907	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0454	mg/Kg	1				
1,2-Dichloroethane	ND	0.00907	mg/Kg	1				
1,2-Dichloropropane	ND	0.00907	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.00907	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0454	mg/Kg	1				
1,3-Dichloropropane	ND	0.00907	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0454	mg/Kg	1				
2,2-Dichloropropane	ND	0.00907	mg/Kg	1				
2-Butanone	ND	0.0454	mg/Kg	1				
2-Chlorotoluene	ND	0.00907	mg/Kg	1				
2-Hexanone	ND	0.0454	mg/Kg	1				
4-Chlorotoluene	ND	0.00907	mg/Kg	1				
4-Isopropyltoluene	ND	0.00907	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0454	mg/Kg	1				
Acetone	ND	0.0454	mg/Kg	1				
Acrylonitrile	ND	0.0454	mg/Kg	1				
Benzene	ND	0.00907	mg/Kg	1				
Bromobenzene	ND	0.00907	mg/Kg	1				
Bromochloromethane	ND	0.0454	mg/Kg	1				
Bromodichloromethane	ND	0.00907	mg/Kg	1				
Bromoform	ND	0.00907	mg/Kg	1				
Bromomethane	ND	0.0907	mg/Kg	1				
Carbon disulfide	ND	0.00907	mg/Kg	1				
Carbon tetrachloride	ND	0.00907	mg/Kg	1				
Chlorobenzene	ND	0.00907	mg/Kg	1				
Chloroethane	ND	0.0454	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B6-2
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 15:50
<b>Lab ID:</b>	0605135-08A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.00907	mg/Kg	1				
Chloromethane	ND	0.0454	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.00907	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.00907	mg/Kg	1				
Dibromochloromethane	ND	0.00907	mg/Kg	1				
Dibromomethane	ND	0.00907	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0454	mg/Kg	1				
Ethylbenzene	ND	0.00907	mg/Kg	1				
Hexachlorobutadiene	ND	0.0454	mg/Kg	1				
Iodomethane	ND	0.0454	mg/Kg	1				
Isopropylbenzene	ND	0.00907	mg/Kg	1				
m,p-Xylene	ND	0.00907	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00454	mg/Kg	1				
Methylene chloride	ND	0.0454	mg/Kg	1				
n-Butylbenzene	ND	0.00907	mg/Kg	1				
n-Propylbenzene	ND	0.00907	mg/Kg	1				
Naphthalene	ND	0.0454	mg/Kg	1				
o-Xylene	ND	0.00907	mg/Kg	1				
sec-Butylbenzene	ND	0.00907	mg/Kg	1				
Styrene	ND	0.00907	mg/Kg	1				
tert-Butylbenzene	ND	0.00907	mg/Kg	1				
Tetrachloroethene	ND	0.00907	mg/Kg	1				
Toluene	ND	0.00907	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.00907	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.00907	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0454	mg/Kg	1				
Trichloroethene	ND	0.00907	mg/Kg	1				
Trichlorofluoromethane	ND	0.00907	mg/Kg	1				
Vinyl acetate	ND	0.0454	mg/Kg	1				
Vinyl chloride	ND	0.0454	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	114	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	89.6	72.1-156	%REC	1				
Surr: Dibromofluoromethane	98.5	63.2-149	%REC	1				
Surr: Toluene-d8	169	70.5-145	%REC	1				S Q02

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B7-8
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 16:30
<b>Lab ID:</b>	0605135-09A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.00871	mg/Kg	1	5/30/06	5/30/2006 6:04:00 PM	13555	
1,1,1-Trichloroethane	ND	0.00871	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.00871	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.00871	mg/Kg	1				
1,1-Dichloroethane	ND	0.0436	mg/Kg	1				
1,1-Dichloroethene	ND	0.00871	mg/Kg	1				
1,1-Dichloropropene	ND	0.00871	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.00871	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.00871	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0436	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.00871	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.00871	mg/Kg	1				
1,2-Dibromoethane	ND	0.00871	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0436	mg/Kg	1				
1,2-Dichloroethane	ND	0.00871	mg/Kg	1				
1,2-Dichloropropane	ND	0.00871	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.00871	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0436	mg/Kg	1				
1,3-Dichloropropane	ND	0.00871	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0436	mg/Kg	1				
2,2-Dichloropropane	ND	0.00871	mg/Kg	1				
2-Butanone	ND	0.0436	mg/Kg	1				
2-Chlorotoluene	ND	0.00871	mg/Kg	1				
2-Hexanone	ND	0.0436	mg/Kg	1				
4-Chlorotoluene	ND	0.00871	mg/Kg	1				
4-Isopropyltoluene	ND	0.00871	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0436	mg/Kg	1				
Acetone	ND	0.0436	mg/Kg	1				
Acrylonitrile	ND	0.0436	mg/Kg	1				
Benzene	ND	0.00871	mg/Kg	1				
Bromobenzene	ND	0.00871	mg/Kg	1				
Bromochloromethane	ND	0.0436	mg/Kg	1				
Bromodichloromethane	ND	0.00871	mg/Kg	1				
Bromoform	ND	0.00871	mg/Kg	1				
Bromomethane	ND	0.0871	mg/Kg	1				
Carbon disulfide	ND	0.00871	mg/Kg	1				
Carbon tetrachloride	ND	0.00871	mg/Kg	1				
Chlorobenzene	ND	0.00871	mg/Kg	1				
Chloroethane	ND	0.0436	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

## Result Summary

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000  
**Lab ID:** 0605135-09A

**Client Sample ID:** FI-B7-8  
**Tag Number:**  
**Collection Date:** 05/23/2006 16:30  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.00871	mg/Kg	1				
Chloromethane	ND	0.0436	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.00871	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.00871	mg/Kg	1				
Dibromochloromethane	ND	0.00871	mg/Kg	1				
Dibromomethane	ND	0.00871	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0436	mg/Kg	1				
Ethylbenzene	ND	0.00871	mg/Kg	1				
Hexachlorobutadiene	ND	0.0436	mg/Kg	1				
Iodomethane	ND	0.0436	mg/Kg	1				
Isopropylbenzene	ND	0.00871	mg/Kg	1				
m,p-Xylene	ND	0.00871	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00436	mg/Kg	1				
Methylene chloride	ND	0.0436	mg/Kg	1				
n-Butylbenzene	ND	0.00871	mg/Kg	1				
n-Propylbenzene	ND	0.00871	mg/Kg	1				
Naphthalene	ND	0.0436	mg/Kg	1				
o-Xylene	ND	0.00871	mg/Kg	1				
sec-Butylbenzene	ND	0.00871	mg/Kg	1				
Styrene	ND	0.00871	mg/Kg	1				
tert-Butylbenzene	ND	0.00871	mg/Kg	1				
Tetrachloroethene	ND	0.00871	mg/Kg	1				
Toluene	ND	0.00871	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.00871	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.00871	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0436	mg/Kg	1				
Trichloroethene	ND	0.00871	mg/Kg	1				
Trichlorofluoromethane	ND	0.00871	mg/Kg	1				
Vinyl acetate	ND	0.0436	mg/Kg	1				
Vinyl chloride	ND	0.0436	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	94.1	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	86.0	72.1-156	%REC	1				
Surr: Dibromofluoromethane	90.1	63.2-149	%REC	1				
Surr: Toluene-d8	92.0	70.5-145	%REC	1				

## Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B5-1
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 17:00
<b>Lab ID:</b>	0605135-10A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
<b>VOLATILES BY GC/MS</b>				<b>SW5035 SW8260B</b>				
1,1,1,2-Tetrachloroethane	ND	0.00820	mg/Kg	1	5/30/06	5/30/2006 6:50:00 PM	13555	
1,1,1-Trichloroethane	ND	0.00820	mg/Kg	1				
1,1,2,2-Tetrachloroethane	ND	0.00820	mg/Kg	1				
1,1,2-Trichloroethane	ND	0.00820	mg/Kg	1				
1,1-Dichloroethane	ND	0.0410	mg/Kg	1				
1,1-Dichloroethene	ND	0.00820	mg/Kg	1				
1,1-Dichloropropene	ND	0.00820	mg/Kg	1				
1,2,3-Trichlorobenzene	ND	0.00820	mg/Kg	1				
1,2,3-Trichloropropane	ND	0.00820	mg/Kg	1				
1,2,4-Trichlorobenzene	ND	0.0410	mg/Kg	1				
1,2,4-Trimethylbenzene	ND	0.00820	mg/Kg	1				
1,2-Dibromo-3-chloropropane	ND	0.00820	mg/Kg	1				
1,2-Dibromoethane	ND	0.00820	mg/Kg	1				
1,2-Dichlorobenzene	ND	0.0410	mg/Kg	1				
1,2-Dichloroethane	ND	0.00820	mg/Kg	1				
1,2-Dichloropropane	ND	0.00820	mg/Kg	1				
1,3,5-Trimethylbenzene	ND	0.00820	mg/Kg	1				
1,3-Dichlorobenzene	ND	0.0410	mg/Kg	1				
1,3-Dichloropropane	ND	0.00820	mg/Kg	1				
1,4-Dichlorobenzene	ND	0.0410	mg/Kg	1				
2,2-Dichloropropane	ND	0.00820	mg/Kg	1				
2-Butanone	ND	0.0410	mg/Kg	1				
2-Chlorotoluene	ND	0.00820	mg/Kg	1				
2-Hexanone	ND	0.0410	mg/Kg	1				
4-Chlorotoluene	ND	0.00820	mg/Kg	1				
4-Isopropyltoluene	ND	0.00820	mg/Kg	1				
4-Methyl-2-pentanone	ND	0.0410	mg/Kg	1				
Acetone	ND	0.0410	mg/Kg	1				
Acrylonitrile	ND	0.0410	mg/Kg	1				
Benzene	ND	0.00820	mg/Kg	1				
Bromobenzene	ND	0.00820	mg/Kg	1				
Bromochloromethane	ND	0.0410	mg/Kg	1				
Bromodichloromethane	ND	0.00820	mg/Kg	1				
Bromoform	ND	0.00820	mg/Kg	1				
Bromomethane	ND	0.0820	mg/Kg	1				
Carbon disulfide	ND	0.00820	mg/Kg	1				
Carbon tetrachloride	ND	0.00820	mg/Kg	1				
Chlorobenzene	ND	0.00820	mg/Kg	1				
Chloroethane	ND	0.0410	mg/Kg	1				

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Result Summary

<b>Client:</b>	Parsons	<b>Client Sample ID:</b>	FI-B5-1
<b>Work Order:</b>	0605135	<b>Tag Number:</b>	
<b>Project:</b>	Forest City, 442221 04000	<b>Collection Date:</b>	05/23/2006 17:00
<b>Lab ID:</b>	0605135-10A	<b>Matrix:</b>	SOIL

Analyses	Result	Reporting Limit	Units	Dilution Factor	Date Prepared	Date Analyze	Batch ID	Qual Notes
Chloroform	ND	0.00820	mg/Kg	1				
Chloromethane	ND	0.0410	mg/Kg	1				
cis-1,2-Dichloroethene	ND	0.00820	mg/Kg	1				
cis-1,3-Dichloropropene	ND	0.00820	mg/Kg	1				
Dibromochloromethane	ND	0.00820	mg/Kg	1				
Dibromomethane	ND	0.00820	mg/Kg	1				
Dichlorodifluoromethane	ND	0.0410	mg/Kg	1				
Ethylbenzene	ND	0.00820	mg/Kg	1				
Hexachlorobutadiene	ND	0.0410	mg/Kg	1				
Iodomethane	ND	0.0410	mg/Kg	1				
Isopropylbenzene	ND	0.00820	mg/Kg	1				
m,p-Xylene	ND	0.00820	mg/Kg	1				
Methyl tert-butyl ether	ND	0.00410	mg/Kg	1				
Methylene chloride	ND	0.0410	mg/Kg	1				
n-Butylbenzene	ND	0.00820	mg/Kg	1				
n-Propylbenzene	ND	0.00820	mg/Kg	1				
Naphthalene	ND	0.0410	mg/Kg	1				
o-Xylene	ND	0.00820	mg/Kg	1				
sec-Butylbenzene	ND	0.00820	mg/Kg	1				
Styrene	ND	0.00820	mg/Kg	1				
tert-Butylbenzene	ND	0.00820	mg/Kg	1				
Tetrachloroethene	ND	0.00820	mg/Kg	1				
Toluene	ND	0.00820	mg/Kg	1				
trans-1,2-Dichloroethene	ND	0.00820	mg/Kg	1				
trans-1,3-Dichloropropene	ND	0.00820	mg/Kg	1				
trans-1,4-Dichloro-2-butene	ND	0.0410	mg/Kg	1				
Trichloroethene	ND	0.00820	mg/Kg	1				
Trichlorofluoromethane	ND	0.00820	mg/Kg	1				
Vinyl acetate	ND	0.0410	mg/Kg	1				
Vinyl chloride	ND	0.0410	mg/Kg	1				
Surr: 1,2-Dichloroethane-d4	98.9	58.3-156	%REC	1				
Surr: 4-Bromofluorobenzene	86.6	72.1-156	%REC	1				
Surr: Dibromofluoromethane	95.0	63.2-149	%REC	1				
Surr: Toluene-d8	93.0	70.5-145	%REC	1				

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

# Oceanic Analytical Laboratory, Inc.

Date: Jun 02, 2006

## QC Summary

### Method Blank

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000

Sample ID: **MBLK8260053006** Batch ID: **13555** Test Code: **SW8260B** Prep Date: **5/30/2006** Units: **mg/Kg**  
 Client ID: Run ID: **MSD1\_060530A** Analysis Date: **5/30/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD RPD Limit	Qual	Note
1,1,1,2-Tetrachloroethane	ND	0.010	1								
1,1,1-Trichloroethane	ND	0.010	1								
1,1,2,2-Tetrachloroethane	ND	0.010	1								
1,1,2-Trichloroethane	ND	0.010	1								
1,1-Dichloroethane	ND	0.050	1								
1,1-Dichloroethene	ND	0.010	1								
1,1-Dichloropropene	ND	0.010	1								
1,2,3-Trichlorobenzene	ND	0.010	1								
1,2,3-Trichloropropane	ND	0.010	1								
1,2,4-Trichlorobenzene	ND	0.050	1								
1,2,4-Trimethylbenzene	ND	0.010	1								
1,2-Dibromo-3-chloropropane	ND	0.010	1								
1,2-Dibromoethane	ND	0.010	1								
1,2-Dichlorobenzene	ND	0.050	1								
1,2-Dichloroethane	ND	0.010	1								
1,2-Dichloropropane	ND	0.010	1								
1,3,5-Trimethylbenzene	ND	0.010	1								
1,3-Dichlorobenzene	ND	0.050	1								
1,3-Dichloropropane	ND	0.010	1								
1,4-Dichlorobenzene	ND	0.050	1								
2,2-Dichloropropane	ND	0.010	1								
2-Butanone	ND	0.050	1								
2-Chlorotoluene	ND	0.010	1								
2-Hexanone	ND	0.050	1								
4-Chlorotoluene	ND	0.010	1								
4-Isopropyltoluene	ND	0.010	1								
4-Methyl-2-pentanone	ND	0.050	1								
Acetone	ND	0.050	1								
Acrylonitrile	ND	0.050	1								
Benzene	ND	0.010	1								
Bromobenzene	ND	0.010	1								
Bromochloromethane	ND	0.050	1								
Bromodichloromethane	ND	0.010	1								
Bromoform	ND	0.010	1								
Bromomethane	ND	0.10	1								
Carbon disulfide	ND	0.010	1								

**Qualifiers** ND - Not Detected at the Reporting Limit S - Spike Recovery outside established recovery limit  
 J - Analyte detected below quantitation limits R - RPD outside established recovery limits  
 B - Analyte detected in the associated Method Blank DF - Dilution Factor  
 %REC - % Recovery RPD - Relative Percent Difference

# Oceanic Analytical Laboratory, Inc.

Date: Jun 02, 2006

## QC Summary

### Method Blank

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000

Carbon tetrachloride	ND	0.010	1						
Chlorobenzene	ND	0.010	1						
Chloroethane	ND	0.050	1						
Chloroform	ND	0.010	1						
Chloromethane	ND	0.050	1						
cis-1,2-Dichloroethene	ND	0.010	1						
cis-1,3-Dichloropropene	ND	0.010	1						
Dibromochloromethane	ND	0.010	1						
Dibromomethane	ND	0.010	1						
Dichlorodifluoromethane	ND	0.050	1						
Ethylbenzene	ND	0.010	1						
Hexachlorobutadiene	ND	0.050	1						
Iodomethane	ND	0.050	1						
Isopropylbenzene	ND	0.010	1						
m,p-Xylene	ND	0.010	1						
Methyl tert-butyl ether	ND	0.0050	1						
Methylene chloride	ND	0.050	1						
n-Butylbenzene	ND	0.010	1						
n-Propylbenzene	ND	0.010	1						
Naphthalene	ND	0.050	1						
o-Xylene	ND	0.010	1						
sec-Butylbenzene	ND	0.010	1						
Styrene	ND	0.010	1						
tert-Butylbenzene	ND	0.010	1						
Tetrachloroethene	ND	0.010	1						
Toluene	ND	0.010	1						
trans-1,2-Dichloroethene	ND	0.010	1						
trans-1,3-Dichloropropene	ND	0.010	1						
trans-1,4-Dichloro-2-butene	ND	0.050	1						
Trichloroethene	ND	0.010	1						
Trichlorofluoromethane	ND	0.010	1						
Vinyl acetate	ND	0.050	1						
Vinyl chloride	ND	0.050	1						
Surr: 1,2-Dichloroethane-d4	0.09976	0	1	0.1	0	99.8	82	153	0
Surr: 4-Bromofluorobenzene	0.09232	0	1	0.1	0	92.3	80	120	0
Surr: Dibromofluoromethane	0.09456	0	1	0.1	0	94.6	82	137	0
Surr: Toluene-d8	0.09782	0	1	0.1	0	97.8	71	129	0

<b>Qualifiers</b>	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside established recovery limit
	J - Analyte detected below quantitation limits	R - RPD outside established recovery limits
	B - Analyte detected in the associated Method Blank	DF - Dilution Factor
	%REC - % Recovery	RPD - Relative Percent Difference

QC Summary  
Laboratory Control Spike

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000

Sample ID: **LCS8260053006** Batch ID: **13555** Test Code: **SW8260B** Prep Date: **5/30/2006** Units: **mg/Kg**  
Client ID: Run ID: **MSD1\_060530A** Analysis Date: **5/30/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD Limit	Qual	Note
1,1,1,2-Tetrachloroethane	0.07954	0.010	1	0.1	0	79.5	76 118	0			
1,1,1-Trichloroethane	0.08476	0.010	1	0.1	0	84.8	58 150	0			
1,1,2,2-Tetrachloroethane	0.08936	0.010	1	0.1	0	89.4	43 130	0			
1,1,2-Trichloroethane	0.0869	0.010	1	0.1	0	86.9	69 114	0			
1,1-Dichloroethane	0.08692	0.050	1	0.1	0	86.9	82 111	0			
1,1-Dichloroethene	0.08738	0.010	1	0.1	0	87.4	78 122	0			
1,1-Dichloropropene	0.08584	0.010	1	0.1	0	85.8	81 124	0			
1,2,3-Trichlorobenzene	0.08724	0.010	1	0.1	0	87.2	68 128	0			
1,2,3-Trichloropropane	0.08402	0.010	1	0.1	0	84	48 131	0			
1,2,4-Trichlorobenzene	0.07986	0.050	1	0.1	0	79.9	70 128	0			
1,2,4-Trimethylbenzene	0.07996	0.010	1	0.1	0	80	73 131	0			
1,2-Dichlorobenzene	0.08268	0.050	1	0.1	0	82.7	76 108	0			
1,2-Dichloroethane	0.08888	0.010	1	0.1	0	88.9	60 144	0			
1,2-Dichloropropane	0.09008	0.010	1	0.1	0	90.1	81 108	0			
1,3,5-Trimethylbenzene	0.08116	0.010	1	0.1	0	81.2	81 108	0			
1,3-Dichlorobenzene	0.08014	0.050	1	0.1	0	80.1	78 109	0			
1,3-Dichloropropane	0.09124	0.010	1	0.1	0	91.2	76 117	0			
1,4-Dichlorobenzene	0.08202	0.050	1	0.1	0	82	79 110	0			
2,2-Dichloropropane	0.08782	0.010	1	0.1	0	87.8	69 142	0			
2-Chlorotoluene	0.0794	0.010	1	0.1	0	79.4	75 111	0			
4-Chlorotoluene	0.08036	0.010	1	0.1	0	80.4	81 109	0		S	Q04
4-Isopropyltoluene	0.07626	0.010	1	0.1	0	76.3	73 126	0			
Benzene	0.08858	0.010	1	0.1	0	88.6	84 111	0			
Bromobenzene	0.08052	0.010	1	0.1	0	80.5	57 122	0			
Bromochloromethane	0.0861	0.050	1	0.1	0	86.1	74 116	0			
Bromodichloromethane	0.09138	0.010	1	0.1	0	91.4	63 144	0			
Bromoform	0.07856	0.010	1	0.1	0	78.6	49 128	0			
Bromomethane	0.09592	0.10	1	0.1	0	95.9	44 136	0		J	
Carbon tetrachloride	0.08454	0.010	1	0.1	0	84.5	60 151	0			
Chlorobenzene	0.08552	0.010	1	0.1	0	85.5	84 110	0			
Chloroethane	0.09704	0.050	1	0.1	0	97	75 127	0			
Chloroform	0.08526	0.010	1	0.1	0	85.3	67 132	0			
Chloromethane	0.09162	0.050	1	0.1	0	91.6	51 161	0			
cis-1,2-Dichloroethene	0.087	0.010	1	0.1	0	87	81 111	0			
cis-1,3-Dichloropropene	0.08804	0.010	1	0.1	0	88	79 107	0			
Dibromochloromethane	0.09108	0.010	1	0.1	0	91.1	74 123	0			

**Qualifiers** ND - Not Detected at the Reporting Limit S - Spike Recovery outside established recovery limit  
J - Analyte detected below quantitation limits R - RPD outside established recovery limits  
B - Analyte detected in the associated Method Blank DF - Dilution Factor  
%REC - % Recovery RPD - Relative Percent Difference

QC Summary  
Laboratory Control Spike

Client: Parsons  
Work Order: 0605135  
Project: Forest City, 442221 04000

Dibromomethane	0.0935	0.010	1	0.1	0	93.5	75	123	0		
Ethylbenzene	0.08822	0.010	1	0.1	0	88.2	72	128	0		
Hexachlorobutadiene	0.07686	0.050	1	0.1	0	76.9	60	125	0		
Isopropylbenzene	0.08106	0.010	1	0.1	0	81.1	65	117	0		
m,p-Xylene	0.1745	0.010	1	0.2	0	87.2	78	124	0		
Methylene chloride	0.0831	0.050	1	0.1	0	83.1	74	114	0		
n-Butylbenzene	0.08206	0.010	1	0.1	0	82.1	65	139	0		
n-Propylbenzene	0.08376	0.010	1	0.1	0	83.8	81	113	0		
Naphthalene	0.0817	0.050	1	0.1	0	81.7	21	176	0		
o-Xylene	0.08618	0.010	1	0.1	0	86.2	73	125	0		
sec-Butylbenzene	0.07974	0.010	1	0.1	0	79.7	77	112	0		
Styrene	0.09322	0.010	1	0.1	0	93.2	78	129	0		
tert-Butylbenzene	0.0801	0.010	1	0.1	0	80.1	78	116	0		
Tetrachloroethene	0.0811	0.010	1	0.1	0	81.1	69	112	0		
Toluene	0.08432	0.010	1	0.1	0	84.3	82	110	0		
trans-1,2-Dichloroethene	0.07974	0.010	1	0.1	0	79.7	84	109	0	S	Q04
trans-1,3-Dichloropropene	0.08444	0.010	1	0.1	0	84.4	68	114	0		
Trichloroethene	0.08558	0.010	1	0.1	0	85.6	80	114	0		
Trichlorofluoromethane	0.09296	0.010	1	0.1	0	93	51	162	0		
Vinyl chloride	0.092	0.050	1	0.1	0	92	56	155	0		
Surr: 1,2-Dichloroethane-d4	0.09476	0	1	0.1	0	94.8	70	138	0		
Surr: 4-Bromofluorobenzene	0.08706	0	1	0.1	0	87.1	66	124	0		
Surr: Dibromofluoromethane	0.09346	0	1	0.1	0	93.5	89	112	0		
Surr: Toluene-d8	0.09456	0	1	0.1	0	94.6	91	109	0		

Qualifiers	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside established recovery limit
	J - Analyte detected below quantitation limits	R - RPD outside established recovery limits
	B - Analyte detected in the associated Method Blank	DF - Dilution Factor
	%REC - % Recovery	RPD - Relative Percent Difference

QC Summary

Laboratory Control Spike Duplicate

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000

Sample ID: **LCSD8260053006** Batch ID: **13555** Test Code: **SW8260B** Prep Date: **5/30/2006** Units: **mg/Kg**  
 Client ID: Run ID: **MSD1\_060530A** Analysis Date: **5/30/2006** Notes:

Analyte	Result	PQL	DF	Spike Value	Spike Ref Val	%REC	%REC Limits	RPD Ref Val	RPD Limit	Qual	Note
1,1,1,2-Tetrachloroethane	0.08444	0.010	1	0.1	0	84.4	76 118	0.07954	5.98	0	
1,1,1-Trichloroethane	0.09062	0.010	1	0.1	0	90.6	58 150	0.08476	6.68	0	
1,1,2,2-Tetrachloroethane	0.09464	0.010	1	0.1	0	94.6	43 130	0.08936	5.74	0	
1,1,2-Trichloroethane	0.0908	0.010	1	0.1	0	90.8	69 114	0.0869	4.39	0	
1,1-Dichloroethane	0.09318	0.050	1	0.1	0	93.2	82 111	0.08692	6.95	0	
1,1-Dichloroethene	0.09234	0.010	1	0.1	0	92.3	78 122	0.08738	5.52	25	
1,1-Dichloropropene	0.0907	0.010	1	0.1	0	90.7	81 124	0.08584	5.51	0	
1,2,3-Trichlorobenzene	0.09442	0.010	1	0.1	0	94.4	68 128	0.08724	7.9	0	
1,2,3-Trichloropropane	0.0903	0.010	1	0.1	0	90.3	48 131	0.08402	7.21	0	
1,2,4-Trichlorobenzene	0.08514	0.050	1	0.1	0	85.1	70 128	0.07986	6.4	0	
1,2,4-Trimethylbenzene	0.08442	0.010	1	0.1	0	84.4	73 131	0.07996	5.43	0	
1,2-Dichlorobenzene	0.0871	0.050	1	0.1	0	87.1	76 108	0.08268	5.21	0	
1,2-Dichloroethane	0.09398	0.010	1	0.1	0	94	60 144	0.08888	5.58	0	
1,2-Dichloropropane	0.09616	0.010	1	0.1	0	96.2	81 108	0.09008	6.53	0	
1,3,5-Trimethylbenzene	0.08568	0.010	1	0.1	0	85.7	81 108	0.08116	5.42	0	
1,3-Dichlorobenzene	0.08588	0.050	1	0.1	0	85.9	78 109	0.08014	6.91	0	
1,3-Dichloropropane	0.09866	0.010	1	0.1	0	98.7	76 117	0.09124	7.81	0	
1,4-Dichlorobenzene	0.08814	0.050	1	0.1	0	88.1	79 110	0.08202	7.19	0	
2,2-Dichloropropane	0.0909	0.010	1	0.1	0	90.9	69 142	0.08782	3.45	0	
2-Chlorotoluene	0.08488	0.010	1	0.1	0	84.9	75 111	0.0794	6.67	0	
4-Chlorotoluene	0.08784	0.010	1	0.1	0	87.8	81 109	0.08036	8.89	0	
4-Isopropyltoluene	0.08228	0.010	1	0.1	0	82.3	73 126	0.07626	7.59	0	
Benzene	0.09302	0.010	1	0.1	0	93	84 111	0.08858	4.89	25	
Bromobenzene	0.08574	0.010	1	0.1	0	85.7	57 122	0.08052	6.28	0	
Bromochloromethane	0.08856	0.050	1	0.1	0	88.6	74 116	0.0861	2.82	0	
Bromodichloromethane	0.09634	0.010	1	0.1	0	96.3	63 144	0.09138	5.28	0	
Bromoform	0.08378	0.010	1	0.1	0	83.8	49 128	0.07856	6.43	0	
Bromomethane	0.09844	0.10	1	0.1	0	98.4	44 136	0.09592	0	0	J
Carbon tetrachloride	0.0887	0.010	1	0.1	0	88.7	60 151	0.08454	4.8	0	
Chlorobenzene	0.09058	0.010	1	0.1	0	90.6	84 110	0.08552	5.75	25	
Chloroethane	0.1021	0.050	1	0.1	0	102	75 127	0.09704	5.12	0	
Chloroform	0.08994	0.010	1	0.1	0	89.9	67 132	0.08526	5.34	0	
Chloromethane	0.09562	0.050	1	0.1	0	95.6	51 161	0.09162	4.27	0	
cis-1,2-Dichloroethene	0.09216	0.010	1	0.1	0	92.2	81 111	0.087	5.76	0	
cis-1,3-Dichloropropene	0.094	0.010	1	0.1	0	94	79 107	0.08804	6.55	0	
Dibromochloromethane	0.09508	0.010	1	0.1	0	95.1	74 123	0.09108	4.3	0	

**Qualifiers** ND - Not Detected at the Reporting Limit S - Spike Recovery outside established recovery limit  
 J - Analyte detected below quantitation limits R - RPD outside established recovery limits  
 B - Analyte detected in the associated Method Blank DF - Dilution Factor  
 %REC - % Recovery RPD - Relative Percent Difference

QC Summary

Laboratory Control Spike Duplicate

**Client:** Parsons  
**Work Order:** 0605135  
**Project:** Forest City, 442221 04000

Dibromomethane	0.09946	0.010	1	0.1	0	99.5	75	123	0.0935	6.18	0
Ethylbenzene	0.09358	0.010	1	0.1	0	93.6	72	128	0.08822	5.9	0
Hexachlorobutadiene	0.08492	0.050	1	0.1	0	84.9	60	125	0.07686	9.96	0
Isopropylbenzene	0.08612	0.010	1	0.1	0	86.1	65	117	0.08106	6.05	0
m,p-Xylene	0.1848	0.010	1	0.2	0	92.4	78	124	0.1745	5.72	0
Methylene chloride	0.0895	0.050	1	0.1	0	89.5	74	114	0.0831	7.42	0
n-Butylbenzene	0.0891	0.010	1	0.1	0	89.1	65	139	0.08206	8.23	0
n-Propylbenzene	0.0898	0.010	1	0.1	0	89.8	81	113	0.08376	6.96	0
Naphthalene	0.09354	0.050	1	0.1	0	93.5	21	176	0.0817	13.5	0
o-Xylene	0.08924	0.010	1	0.1	0	89.2	73	125	0.08618	3.49	0
sec-Butylbenzene	0.08486	0.010	1	0.1	0	84.9	77	112	0.07974	6.22	0
Styrene	0.0982	0.010	1	0.1	0	98.2	78	129	0.09322	5.2	0
tert-Butylbenzene	0.0858	0.010	1	0.1	0	85.8	78	116	0.0801	6.87	0
Tetrachloroethene	0.08476	0.010	1	0.1	0	84.8	69	112	0.0811	4.41	0
Toluene	0.09026	0.010	1	0.1	0	90.3	82	110	0.08432	6.8	25
trans-1,2-Dichloroethene	0.08588	0.010	1	0.1	0	85.9	84	109	0.07974	7.41	0
trans-1,3-Dichloropropene	0.08888	0.010	1	0.1	0	88.9	68	114	0.08444	5.12	0
Trichloroethene	0.09116	0.010	1	0.1	0	91.2	80	114	0.08558	6.31	25
Trichlorofluoromethane	0.09506	0.010	1	0.1	0	95.1	51	162	0.09296	2.23	0
Vinyl chloride	0.09476	0.050	1	0.1	0	94.8	56	155	0.092	2.96	0
Surr: 1,2-Dichloroethane-d4	0.09852	0	1	0.1	0	98.5	70	138	0	0	0
Surr: 4-Bromofluorobenzene	0.09	0	1	0.1	0	90	66	124	0	0	0
Surr: Dibromofluoromethane	0.09492	0	1	0.1	0	94.9	89	112	0	0	0
Surr: Toluene-d8	0.0958	0	1	0.1	0	95.8	91	109	0	0	0

Qualifiers

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

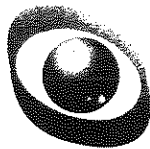
%REC - % Recovery

S - Spike Recovery outside established recovery limit

R - RPD outside established recovery limits

DF - Dilution Factor

RPD - Relative Percent Difference



# Oceanic Analytical Laboratory, Inc.

99-193 Ala Heights Drive, Suite 121 Ala, Hawaii 96701-3900  
Telephone: (808)486-LABS (5227) Fax: (808)486-2456 E-mail: info@oceanic-labs.com

(b) (6)  
email: [redacted]  
Report To: [redacted]

(b) (6)  
@parsons.com

## Chain of Custody / Analysis Request Form

Project Identification										Indicate Analysis Requested															
Company Name		Job Name		Job Number		P.O. Number		Date Results Needed																	
Parsons		Forest City		442221		04000		2 wk.																	
Address		City		State		ZIP		Date of Sample Shipment																	
1132 Bishop st suite 2102		Hon		HI		96813																			
Phone		Fax		# of Samples in Shipment		Delivery Method		Received by																	
748-7576 / 258 1900		808 748 7575		10		COMP		[redacted]																	
Sampler		Client Sample I.D.		GRAB		Matrix		Preservation Method		Containers															
						Water		Wastewater		Drinking water		Sludge		Liquid		Solid		Oil		Other		Sampling Time		Laboratory No.	
1	FI-B8-7			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 0820	1	NDS135-D1	
2	FI-B9-7			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 0854	1	-02-	
3	FI-B10-5			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 0930	1	-03-	
4	FI-B3-10			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1040	1	-04-	
5	FI-B2-5			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1420	1	-05-	
6	FI-B1-7			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1445	1	-06-	
7	FI-B4-3			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1515	1	-07-	
8	FI-B6-2			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1550	1	-08-	
9	FI-B7-8			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1630	1	-09-	
10	FI-B5-1			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5-23-06 1700	1	-10-	

Released by (Print/Signature)	Date / Time Released	Delivery Method	Received by	Date / Time Received	Company / Agency Affiliation	Condition Noted
[redacted]	5-24-06/1200	drop off	[redacted]	5/24/06/1200	OCAL	frozen intact
	/			/		dryid
	/			/		

Please Check Box  
☐ Dispose by Lab  
☐ Return to Client  
☐ Archive



**STL**

**STL Sacramento**  
880 Riverside Parkway  
West Sacramento, CA 95605

Tel: 916 373 5600 Fax: 916 372 1059  
[www.stl-inc.com](http://www.stl-inc.com)

June 20, 2006

**STL SACRAMENTO PROJECT NUMBER: G6E310324**  
**PO/CONTRACT:**

(b) (6)

Parsons Corporation  
1132 Bishop St. Suite 2102  
Honolulu, HI 93813

Dear (b) (6)

This report contains the analytical results for the samples received under chain of custody by STL Sacramento on May 31, 2006. These samples are associated with your 442221 project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4442.

Sincerely,

(b) (6)

Project Manager

## **TABLE OF CONTENTS**

### **STL SACRAMENTO PROJECT NUMBER G6E310324**

Case Narrative

STL Sacramento Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

SOLID, 8081A, Pesticides STD List

Samples: 11, 12, 13, 14, 15, 18, 21

Sample Data Sheets

Method Blank Reports

Laboratory QC Reports

Metals - Various Methods

Samples: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 21

Sample Data Sheets

Method Blank Reports

Laboratory QC Reports

## **CASE NARRATIVE**

### **STL SACRAMENTO PROJECT NUMBER G6E310324**

#### **General Comments**

The following was noted at sample receipt. The sample jar for 1945G-13-2 was received broken. Sample B-9 was labeled with a sampling time of 853, the COC lists 854. Sample B-8 was labeled with a sampling time of 910, the COC lists 930. Sample 1954G-12-1 was labeled 1945G-B12-1. Sample 1945G-12-2 was labeled 1954G-B12-2. Sample 2234K-8-2 was labeled 2234-K-2. The samples were logged in using the information on the COC. Also your additional e-mail instructions were followed for the log-ion of these samples.

#### **SOLID, 8081A, Pesticides STD List**

Sample(s): 11, 12, 12, 12, 13, 14, 15, 18, 21

The percent recovery (%R) for gamma-Chlordane (0%/0%) and alpha-Chlordane (18%/16%) were less than the lower limit of 65% in the matrix spike (MS) and matrix spike duplicate (MSD). In addition the %R for surrogate, decachlorobiphenyl (DCB) (132%) was greater than the upper control limit of 130% in the MSD. No further action was taken as the %R in the laboratory control sample (LCS) was in control for all analytes.

#### **SOLID, 6010B, RCRA metals incl Hg**

Sample(s): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 18, 21

An analytical sequence including samples 7-10, method blank, LCS, and samples 11, 11 serial dilution, 11MS, and 11SD had 11 injections. One injection was at an empty autosampler position. All data from this sequence has been reported as all instrument quality control samples are in control.

There were no other anomalies associated with this project.

## STL Sacramento Certifications/Accreditations

Certifying State	Certificate #	Certifying State	Certificate #
Alaska	UST-055	Oregon*	CA 200005
Arizona	AZ0616	Pennsylvania	68-1272
Arkansas	04-067-0	South Carolina	87014002
California*	01119CA	Texas	TX 270-2004A
Colorado	NA	Utah*	QUAN1
Connecticut	PH-0691	Virginia	00178
Florida*	E87570	Washington	C087
Georgia	960	West Virginia	9930C, 334
Hawaii	NA	Wisconsin	998204680
Louisiana*	01944	NFESC	NA
Michigan	9947	USACE	NA
Nevada	CA44	USDA Foreign Plant	37-82605
New Jersey*	CA005	USDA Foreign Soil	S-46613
New York*	11666		

\*NELAP accredited. A more detailed parameter list is available upon request. Update 1/27/05

## QC Parameter Definitions

**QC Batch:** The QC batch consists of a set of up to 20 field samples that behave similarly (i.e., same matrix) and are processed using the same procedures, reagents, and standards at the same time.

**Method Blank:** An analytical control consisting of all reagents, which may include internal standards and surrogates, and is carried through the entire analytical procedure. The method blank is used to define the level of laboratory background contamination.

**Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD):**

An aliquot of blank matrix spiked with known amounts of representative target analytes. The LCS (and LCSD as required) is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. If an LCSD is performed, it may also be used to evaluate the precision of the process.

**Duplicate Sample (DU):** Different aliquots of the same sample are analyzed to evaluate the precision of an analysis.

**Surrogates:** Organic compounds not expected to be detected in field samples, which behave similarly to target analytes. These are added to every sample within a batch at a known concentration to determine the efficiency of the sample preparation and analytical process.

**Matrix Spike and Matrix Spike Duplicate (MS/MSD):** An MS is an aliquot of a matrix fortified with known quantities of specific compounds and subjected to an entire analytical procedure in order to indicate the appropriateness of the method for a particular matrix. The percent recovery for the respective compound(s) is then calculated. The MSD is a second aliquot of the same matrix as the matrix spike, also spiked, in order to determine the precision of the method.

**Isotope Dilution:** For isotope dilution methods, isotopically labeled analogs (internal standards) of the native target analytes are spiked into the sample at time of extraction. These internal standards are used for quantitation, and monitor and correct for matrix effects. Since matrix effects on method performance can be judged by the recovery of these analogs, there is little added benefit of performing MS/MSD for these methods. MS/MSD are only performed for client or QAPP requirements.

**Control Limits:** The reported control limits are either based on laboratory historical data, method requirements, or project data quality objectives. The control limits represent the estimated uncertainty of the test results.

## Sample Summary

### G6E310324

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
H6GQ5	1	B8	5/23/2006 08:20 AM	5/31/2006
09:15 AM				
H6GR1	2	B9	5/23/2006 08:54 AM	5/31/2006
09:15 AM				
H6GR2	3	B10	5/23/2006 09:30 AM	5/31/2006
09:15 AM				
H6GR3	4	B3	5/23/2006 10:40 AM	5/31/2006
09:15 AM				
H6GR5	5	B2	5/23/2006 02:20 PM	5/31/2006
09:15 AM				
H6GR5	5	B2 DUP	5/23/2006 02:20 PM	5/31/2006
09:15 AM				
H6GWE	6	B1	5/23/2006 02:45 PM	5/31/2006
09:15 AM				
H6GWH	7	B4	5/23/2006 03:15 PM	5/31/2006
09:15 AM				
H6GWJ	8	B6	5/23/2006 03:50 PM	5/31/2006
09:15 AM				
H6GWK	9	B7	5/23/2006 04:30 PM	5/31/2006
09:15 AM				
H6GWM	10	B5	5/23/2006 05:00 PM	5/31/2006
09:15 AM				
H6GWN	11	1954G-12-1	5/24/2006 10:50 AM	5/31/2006
09:15 AM				
H6GWR	12	1954G-12-2	5/24/2006 10:50 AM	5/31/2006
09:15 AM				
H6GWW	13	1954G-13-1	5/24/2006 11:30 AM	5/31/2006
09:15 AM				
H6GWX	14	1954G-14-1	5/24/2006 01:00 PM	5/31/2006
09:15 AM				
H6GW0	15	1954G-14-2	5/24/2006 01:00 PM	5/31/2006
09:15 AM				
H6GW1	16	2234K-7-1	5/24/2006 03:30 PM	5/31/2006
09:15 AM				
H6GW2	17	2234K-8-1	5/24/2006 04:00 PM	5/31/2006
09:15 AM				
H6GW3	18	2234K-7-1,2234K-8-1-COMPOSITE	5/24/2006	5/31/2006 09:15
AM				
H6GW4	19	2234K-7-2	5/24/2006 03:30 PM	5/31/2006
09:15 AM				
H6GW5	20	2234K-8-2	5/24/2006 04:00 PM	5/31/2006
09:15 AM				

# Sample Summary

## G6E310324

H6GW6 21  
AM

2234K-7-2,2234K-8-2-COMPOSITE 5/24/2006

5/31/2006 09:15

### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

## QC DATA ASSOCIATION SUMMARY

G6E310324

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	ASTM D 2216-90		6152284	6152190
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
002	SO	ASTM D 2216-90		6152284	6152190
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
003	SO	ASTM D 2216-90		6152284	6152190
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
004	SO	ASTM D 2216-90		6152284	6152190
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
005	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
006	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
007	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
008	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
009	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
010	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
011	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048

(Continued on next page)

# QC DATA ASSOCIATION SUMMARY

G6E310324

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
012	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048
013	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048
014	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048
015	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048
018	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048
021	SO	ASTM D 2216-90		6152285	6152191
	SO	SW846 8081A		6157239	6157125
	SO	SW846 6010B		6156097	6156048

# Metals - Various Methods

Parsons Corporation

Client Sample ID: B8

TOTAL Metals

Lot-Sample #...: G6E310324-001

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 19

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.62	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AD
		Dilution Factor: 1		MDL.....: 0.12		
Arsenic	1.1 B	2.5	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AE
		Dilution Factor: 1		MDL.....: 0.74		
Barium	48.5	2.5	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AF
		Dilution Factor: 1		MDL.....: 0.50		
Cadmium	ND	0.37	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AG
		Dilution Factor: 1		MDL.....: 0.099		
Chromium	19.2	0.74	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AH
		Dilution Factor: 1		MDL.....: 0.25		
Lead	ND	1.9	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AJ
		Dilution Factor: 1		MDL.....: 0.62		
Selenium	ND	2.5	mg/kg	SW846 6010B	06/05-06/06/06	H6GQ51AK
		Dilution Factor: 1		MDL.....: 0.74		
Prep Batch #....: 6156284						
Mercury	0.021 B	0.050	mg/kg	SW846 7471A	06/05/06	H6GQ51AC
		Dilution Factor: 1		MDL.....: 0.011		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B9

TOTAL Metals

Lot-Sample #....: G6E310324-002

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 17

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.60	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AD
		Dilution Factor: 1		MDL.....: 0.12		
Arsenic	1.9 B	2.4	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AE
		Dilution Factor: 1		MDL.....: 0.72		
Barium	69.6	2.4	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AF
		Dilution Factor: 1		MDL.....: 0.48		
Cadmium	ND	0.36	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AG
		Dilution Factor: 1		MDL.....: 0.096		
Chromium	24.5	0.72	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AH
		Dilution Factor: 1		MDL.....: 0.24		
Lead	ND	1.8	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AJ
		Dilution Factor: 1		MDL.....: 0.60		
Selenium	ND	2.4	mg/kg	SW846 6010B	06/05-06/07/06	H6GR11AK
		Dilution Factor: 1		MDL.....: 0.72		
Prep Batch #....: 6156284						
Mercury	0.025 B	0.048	mg/kg	SW846 7471A	06/05/06	H6GR11AC
		Dilution Factor: 1		MDL.....: 0.010		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B10

TOTAL Metals

Lot-Sample #...: G6E310324-003

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 19

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6156095						
Silver	ND	0.62	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AD
		Dilution Factor: 1		MDL.....: 0.12		
Arsenic	6.7	2.5	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AE
		Dilution Factor: 1		MDL.....: 0.74		
Barium	169	2.5	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AF
		Dilution Factor: 1		MDL.....: 0.49		
Cadmium	ND	0.37	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AG
		Dilution Factor: 1		MDL.....: 0.099		
Chromium	30.2	0.74	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AH
		Dilution Factor: 1		MDL.....: 0.25		
Lead	3.4	1.9	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AJ
		Dilution Factor: 1		MDL.....: 0.62		
Selenium	ND	2.5	mg/kg	SW846 6010B	06/05-06/07/06	H6GR21AK
		Dilution Factor: 1		MDL.....: 0.74		
Prep Batch #...: 6156284						
Mercury	0.031 B	0.049	mg/kg	SW846 7471A	06/05/06	H6GR21AC
		Dilution Factor: 1		MDL.....: 0.011		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B3

TOTAL Metals

Lot-Sample #....: G6E310324-004

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 27

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.69	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AD
		Dilution Factor: 1		MDL.....: 0.14		
Arsenic	3.5	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AE
		Dilution Factor: 1		MDL.....: 0.82		
Barium	82.7	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AF
		Dilution Factor: 1		MDL.....: 0.55		
Cadmium	0.14 B	0.41	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AG
		Dilution Factor: 1		MDL.....: 0.11		
Chromium	87.4	0.82	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AH
		Dilution Factor: 1		MDL.....: 0.27		
Lead	1.5 B	2.1	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AJ
		Dilution Factor: 1		MDL.....: 0.69		
Selenium	ND	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GR31AK
		Dilution Factor: 1		MDL.....: 0.82		
Prep Batch #....: 6156284						
Mercury	0.038 B	0.055	mg/kg	SW846 7471A	06/05/06	H6GR31AC
		Dilution Factor: 1		MDL.....: 0.012		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B2

TOTAL Metals

Lot-Sample #....: G6E310324-005

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 9.5

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.55	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AD
		Dilution Factor: 1		MDL.....: 0.11		
Arsenic	1.2 B	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AE
		Dilution Factor: 1		MDL.....: 0.66		
Barium	91.7	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AF
		Dilution Factor: 1		MDL.....: 0.44		
Cadmium	ND	0.33	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AG
		Dilution Factor: 1		MDL.....: 0.088		
Chromium	6.3	0.66	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AH
		Dilution Factor: 1		MDL.....: 0.22		
Lead	0.58 B	1.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AJ
		Dilution Factor: 1		MDL.....: 0.55		
Selenium	ND	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GR51AK
		Dilution Factor: 1		MDL.....: 0.66		
Prep Batch #....: 6156284						
Mercury	0.017 B	0.044	mg/kg	SW846 7471A	06/05/06	H6GR51AC
		Dilution Factor: 1		MDL.....: 0.0095		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B1

TOTAL Metals

Lot-Sample #....: G6E310324-006

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 10

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.56	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AD
		Dilution Factor: 1		MDL.....: 0.11		
Arsenic	0.76 B	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AE
		Dilution Factor: 1		MDL.....: 0.67		
Barium	48.3	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AF
		Dilution Factor: 1		MDL.....: 0.44		
Cadmium	ND	0.33	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AG
		Dilution Factor: 1		MDL.....: 0.089		
Chromium	5.8	0.67	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AH
		Dilution Factor: 1		MDL.....: 0.22		
Lead	ND	1.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AJ
		Dilution Factor: 1		MDL.....: 0.56		
Selenium	ND	2.2	mg/kg	SW846 6010B	06/05-06/07/06	H6GWE1AK
		Dilution Factor: 1		MDL.....: 0.67		
Prep Batch #....: 6156284						
Mercury	ND	0.044	mg/kg	SW846 7471A	06/05/06	H6GWE1AC
		Dilution Factor: 1		MDL.....: 0.0095		

**NOTE(S) :**

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B4

TOTAL Metals

Lot-Sample #....: G6E310324-007

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 28

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.69	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AD
		Dilution Factor: 1		MDL.....: 0.14		
Arsenic	7.7	2.8	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AE
		Dilution Factor: 1		MDL.....: 0.83		
Barium	497	2.8	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AF
		Dilution Factor: 1		MDL.....: 0.55		
Cadmium	0.15 B	0.42	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AG
		Dilution Factor: 1		MDL.....: 0.11		
Chromium	101	0.83	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AH
		Dilution Factor: 1		MDL.....: 0.28		
Lead	7.3	2.1	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AJ
		Dilution Factor: 1		MDL.....: 0.69		
Selenium	ND	2.8	mg/kg	SW846 6010B	06/05-06/07/06	H6GWH1AK
		Dilution Factor: 1		MDL.....: 0.83		
Prep Batch #....: 6156284						
Mercury	0.048 B	0.055	mg/kg	SW846 7471A	06/05/06	H6GWH1AC
		Dilution Factor: 1		MDL.....: 0.012		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B6

TOTAL Metals

Lot-Sample #....: G6E310324-008

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 26

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.67	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AD
		Dilution Factor: 1		MDL.....: 0.13		
Arsenic	9.1	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AE
		Dilution Factor: 1		MDL.....: 0.81		
Barium	887	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AF
		Dilution Factor: 1		MDL.....: 0.54		
Cadmium	0.22 B	0.40	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AG
		Dilution Factor: 1		MDL.....: 0.11		
Chromium	143	0.81	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AH
		Dilution Factor: 1		MDL.....: 0.27		
Lead	11.6	2.0	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AJ
		Dilution Factor: 1		MDL.....: 0.67		
Selenium	ND	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWJ1AK
		Dilution Factor: 1		MDL.....: 0.81		
Prep Batch #....: 6156284						
Mercury	0.016 B	0.054	mg/kg	SW846 7471A	06/05/06	H6GWJ1AC
		Dilution Factor: 1		MDL.....: 0.012		

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B7

TOTAL Metals

Lot-Sample #...: G6E310324-009

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 23

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6156095						
Silver	ND	0.65	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AD
		Dilution Factor: 1		MDL.....: 0.13		
Arsenic	1.2 B	2.6	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AE
		Dilution Factor: 1		MDL.....: 0.78		
Barium	33.0	2.6	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AF
		Dilution Factor: 1		MDL.....: 0.52		
Cadmium	ND	0.39	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AG
		Dilution Factor: 1		MDL.....: 0.10		
Chromium	58.8	0.78	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AH
		Dilution Factor: 1		MDL.....: 0.26		
Lead	0.66 B	1.9	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AJ
		Dilution Factor: 1		MDL.....: 0.65		
Selenium	ND	2.6	mg/kg	SW846 6010B	06/05-06/07/06	H6GWK1AK
		Dilution Factor: 1		MDL.....: 0.78		
Prep Batch #...: 6156284						
Mercury	0.012 B	0.052	mg/kg	SW846 7471A	06/05/06	H6GWK1AC
		Dilution Factor: 1		MDL.....: 0.011		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

Parsons Corporation

Client Sample ID: B5

TOTAL Metals

Lot-Sample #....: G6E310324-010

Matrix.....: SO

Date Sampled....: 05/23/06

Date Received...: 05/31/06

% Moisture.....: 25

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 6156095						
Silver	ND	0.66	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AD
		Dilution Factor: 1		MDL.....: 0.13		
Arsenic	8.5	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AE
		Dilution Factor: 1		MDL.....: 0.80		
Barium	581	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AF
		Dilution Factor: 1		MDL.....: 0.53		
Cadmium	0.29 B	0.40	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AG
		Dilution Factor: 1		MDL.....: 0.11		
Chromium	146	0.80	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AH
		Dilution Factor: 1		MDL.....: 0.27		
Lead	8.3	2.0	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AJ
		Dilution Factor: 1		MDL.....: 0.66		
Selenium	ND	2.7	mg/kg	SW846 6010B	06/05-06/07/06	H6GWM1AK
		Dilution Factor: 1		MDL.....: 0.80		
Prep Batch #....: 6156284						
Mercury	0.026 B	0.053	mg/kg	SW846 7471A	06/05/06	H6GWM1AC
		Dilution Factor: 1		MDL.....: 0.011		

NOTE(S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

# QC DATA ASSOCIATION SUMMARY

G6E310324

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
002	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
003	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
004	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
005	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
006	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
007	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
008	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
009	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
010	SO	SW846 7471A		6156284	6156169
	SO	SW846 6010B		6156095	6156046
011	SO	SW846 6010B		6156097	6156048
012	SO	SW846 6010B		6156097	6156048
013	SO	SW846 6010B		6156097	6156048
014	SO	SW846 6010B		6156097	6156048
015	SO	SW846 6010B		6156097	6156048
018	SO	SW846 6010B		6156097	6156048

(Continued on next page)

# QC DATA ASSOCIATION SUMMARY

G6E310324

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
021	SO	SW846 6010B		6156097	6156048

# METHOD BLANK REPORT

## TOTAL Metals

Client Lot #...: G6E310324

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: G6F050000-095 Prep Batch #...: 6156095						
Arsenic	ND	2.0	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AC
		Dilution Factor: 1				
Barium	ND	2.0	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AD
		Dilution Factor: 1				
Cadmium	ND	0.30	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AE
		Dilution Factor: 1				
Chromium	ND	0.60	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AF
		Dilution Factor: 1				
Lead	ND	1.5	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AG
		Dilution Factor: 1				
Selenium	ND	2.0	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AH
		Dilution Factor: 1				
Silver	ND	0.50	mg/kg	SW846 6010B	06/05-06/06/06	H6PEQ1AA
		Dilution Factor: 1				
MB Lot-Sample #: G6F050000-097 Prep Batch #...: 6156097						
Lead	ND	1.5	mg/kg	SW846 6010B	06/05-06/07/06	H6PET1AA
		Dilution Factor: 1				
MB Lot-Sample #: G6F050000-284 Prep Batch #...: 6156284						
Mercury	ND	0.040	mg/kg	SW846 7471A	06/05/06	H6PWC1AA
		Dilution Factor: 1				

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: G6E310324

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>LCS Lot-Sample#:</b> G6F050000-095 <b>Prep Batch #...</b> : 6156095					
Silver	99	(75 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AJ
		Dilution Factor: 1			
Arsenic	92	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AK
		Dilution Factor: 1			
Barium	98	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AL
		Dilution Factor: 1			
Cadmium	91	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AM
		Dilution Factor: 1			
Chromium	96	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AN
		Dilution Factor: 1			
Lead	93	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AP
		Dilution Factor: 1			
Selenium	91	(80 - 120)	SW846 6010B	06/05-06/06/06	H6PEQ1AQ
		Dilution Factor: 1			
<b>LCS Lot-Sample#:</b> G6F050000-097 <b>Prep Batch #...</b> : 6156097					
Lead	96	(80 - 120)	SW846 6010B	06/05-06/07/06	H6PET1AC
		Dilution Factor: 1			
<b>LCS Lot-Sample#:</b> G6F050000-284 <b>Prep Batch #...</b> : 6156284					
Mercury	91	(80 - 120)	SW846 7471A	06/05/06	H6PWC1AC
		Dilution Factor: 1			

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #...: G6E310324

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: G6F050000-095 Prep Batch #....: 6156095							
Silver	5.60	5.56	mg/kg	99	SW846 6010B	06/05-06/06/06	H6PEQ1AJ
			Dilution Factor: 1				
Arsenic	200	185	mg/kg	92	SW846 6010B	06/05-06/06/06	H6PEQ1AK
			Dilution Factor: 1				
Barium	200	197	mg/kg	98	SW846 6010B	06/05-06/06/06	H6PEQ1AL
			Dilution Factor: 1				
Cadmium	5.00	4.54	mg/kg	91	SW846 6010B	06/05-06/06/06	H6PEQ1AM
			Dilution Factor: 1				
Chromium	20.0	19.2	mg/kg	96	SW846 6010B	06/05-06/06/06	H6PEQ1AN
			Dilution Factor: 1				
Lead	50.0	46.6	mg/kg	93	SW846 6010B	06/05-06/06/06	H6PEQ1AP
			Dilution Factor: 1				
Selenium	200	181	mg/kg	91	SW846 6010B	06/05-06/06/06	H6PEQ1AQ
			Dilution Factor: 1				
LCS Lot-Sample#: G6F050000-097 Prep Batch #....: 6156097							
Lead	50.0	48.0	mg/kg	96	SW846 6010B	06/05-06/07/06	H6PET1AC
			Dilution Factor: 1				
LCS Lot-Sample#: G6F050000-284 Prep Batch #....: 6156284							
Mercury	0.0833	0.0754	mg/kg	91	SW846 7471A	06/05/06	H6PWC1AC
			Dilution Factor: 1				

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

## TOTAL Metals

Client Lot #...: G6E310324

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
<b>MS Lot-Sample #: G6E310324-001 Prep Batch #...: 6156095</b>						
Arsenic	96	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AN
	94	(80 - 120) 5.9	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51AP
		Dilution Factor: 1				
Barium	90	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AQ
	93	(80 - 120) 0.27	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51AR
		Dilution Factor: 1				
Cadmium	83	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AT
	82	(80 - 120) 5.9	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51AU
		Dilution Factor: 1				
Chromium	106	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AV
	109	(80 - 120) 0.66	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51AW
		Dilution Factor: 1				
Lead	86	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AX
	84	(80 - 120) 6.3	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51A0
		Dilution Factor: 1				
Selenium	94	(80 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51A1
	93	(80 - 120) 5.0	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51A2
		Dilution Factor: 1				
Silver	109	(75 - 120)		SW846 6010B	06/05-06/07/06	H6GQ51AL
	107	(75 - 120) 5.5	(0-30)	SW846 6010B	06/05-06/07/06	H6GQ51AM
		Dilution Factor: 1				

**MS Lot-Sample #: G6E310324-001 Prep Batch #...: 6156284**

Mercury	98	(80 - 120)		SW846 7471A	06/05/06	H6GQ51A3
	98	(80 - 120) 0.31	(0-30)	SW846 7471A	06/05/06	H6GQ51A4
		Dilution Factor: 1				

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE DATA REPORT

## TOTAL Metals

Client Lot #....: G6E310324

Matrix.....: SO

Date Sampled...: 05/23/06

Date Received...: 05/31/06

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
-----------	---------------	-----------	---------------	-------	---------------	-----	--------	----------------------------	--------------

MS Lot-Sample #: G6E310324-001 Prep Batch #....: 6156095

### Arsenic

1.1	248	239	mg/kg	96			SW846 6010B	06/05-06/07/06	H6GQ51AN
1.1	238	226	mg/kg	94	5.9		SW846 6010B	06/05-06/07/06	H6GQ51AP

Dilution Factor: 1

### Barium

48.5	248	272	mg/kg	90			SW846 6010B	06/05-06/07/06	H6GQ51AQ
48.5	238	271	mg/kg	93	0.27		SW846 6010B	06/05-06/07/06	H6GQ51AR

Dilution Factor: 1

### Cadmium

ND	6.19	5.17	mg/kg	83			SW846 6010B	06/05-06/07/06	H6GQ51AT
ND	5.95	4.87	mg/kg	82	5.9		SW846 6010B	06/05-06/07/06	H6GQ51AU

Dilution Factor: 1

### Chromium

19.2	24.8	45.5	mg/kg	106			SW846 6010B	06/05-06/07/06	H6GQ51AV
19.2	23.8	45.2	mg/kg	109	0.66		SW846 6010B	06/05-06/07/06	H6GQ51AW

Dilution Factor: 1

### Lead

ND	61.9	53.2	mg/kg	86			SW846 6010B	06/05-06/07/06	H6GQ51AX
ND	59.5	49.9	mg/kg	84	6.3		SW846 6010B	06/05-06/07/06	H6GQ51A0

Dilution Factor: 1

### Selenium

ND	248	233	mg/kg	94			SW846 6010B	06/05-06/07/06	H6GQ51A1
ND	238	221	mg/kg	93	5.0		SW846 6010B	06/05-06/07/06	H6GQ51A2

Dilution Factor: 1

### Silver

ND	6.94	7.54	mg/kg	109			SW846 6010B	06/05-06/07/06	H6GQ51AL
ND	6.67	7.14	mg/kg	107	5.5		SW846 6010B	06/05-06/07/06	H6GQ51AM

Dilution Factor: 1

MS Lot-Sample #: G6E310324-001 Prep Batch #....: 6156284

### Mercury

0.021	0.320	0.334	mg/kg	98			SW846 7471A	06/05/06	H6GQ51A3
0.021	0.320	0.333	mg/kg	98	0.31		SW846 7471A	06/05/06	H6GQ51A4

Dilution Factor: 1

### NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

**TRACK ► INFO SERVICES, LLC**

# **Environmental FirstSearch™ Report**

Target Property:

**FORD ISLAND NAVAL FAMILY HOUSING**

**HONOLULU HI 96844**

Job Number: 904283

**PREPARED FOR:**

Parsons Engineering  
100 West Walnut Street  
Pasadena, CA 91124

07-23-07



*Tel: (866) 664-9981*

*Fax: (818) 249-4227*

# Environmental FirstSearch Search Summary Report

**Target Site:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

## FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	05-08-07	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	03-08-07	0.50	0	0	0	0	-	0	0
CERCLIS	Y	05-08-07	0.50	0	0	0	0	-	0	0
NFRAP	Y	05-08-07	0.25	0	0	0	-	-	0	0
RCRA COR ACT	Y	06-06-06	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	06-06-06	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	06-06-06	0.25	0	0	0	-	-	2	2
RCRA NLR	Y	06-06-06	0.12	0	0	-	-	-	1	1
Federal IC / EC	Y	04-16-07	0.25	0	0	0	-	-	0	0
ERNS	Y	12-31-06	0.12	0	0	-	-	-	1	1
Tribal Lands	Y	12-01-05	1.00	0	0	0	0	0	0	0
State/Tribal Sites	Y	07-24-06	1.00	0	0	0	0	0	0	0
State/Tribal SWL	Y	NA	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	07-28-06	0.50	0	0	0	0	-	2	2
State/Tribal UST/AST	Y	08-04-06	0.25	0	0	0	-	-	4	4
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	07-24-06	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	07-24-06	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	07-24-06	0.50	0	0	0	0	-	0	0
State Wells	Y	NA	0.50	0	0	0	0	-	0	0
Aquifers	Y	NA	0.50	0	0	0	0	-	0	0
State ACEC	Y	NA	0.50	0	0	0	0	-	0	0
Wetlands	Y	NA	0.50	1	0	0	0	-	0	1
Floodplains	Y	NA	0.50	0	0	0	0	-	0	0
Receptors	Y	01-01-05	0.50	0	0	0	1	-	0	1
Historic Landmarks	Y	11-17-05	0.50	0	0	0	0	-	2	2
Federal Land Use	Y	08-01-06	0.50	1	1	0	0	-	0	2
Federal Wells	Y	12-28-06	0.50	0	0	2	0	-	0	2
USGS Soils	Y	03-18-97	0.25	0	0	0	-	-	0	0

### Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

### Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

- Continued on next page -

# ***Environmental FirstSearch***

## ***Search Summary Report***

**Target Site:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

### **FirstSearch Summary**

<b>Database</b>	<b>Sel</b>	<b>Updated</b>	<b>Radius</b>	<b>Site</b>	<b>1/8</b>	<b>1/4</b>	<b>1/2</b>	<b>1/2&gt;</b>	<b>ZIP</b>	<b>TOTALS</b>
NPDES	Y	12-15-06	0.25	0	0	0	-	-	0	0
FINDS	Y	11-01-06	0.25	0	0	0	-	-	2	2
TRIS	Y	11-10-06	0.25	0	0	0	-	-	0	0
HMIRS	Y	04-16-07	0.50	0	0	0	0	-	0	0
NCDB	Y	09-22-06	0.25	0	0	0	-	-	2	2
PADS	Y	04-12-07	0.25	0	0	0	-	-	0	0
Nuclear Permits	Y	NA	0.50	0	0	0	0	-	0	0
Releases	Y	12-31-06	0.25	0	0	0	-	-	1	1
State Permits	Y	NA	0.25	0	0	0	-	-	0	0
State Other	Y	01-01-07	0.25	0	0	0	-	-	0	0
- TOTALS -				2	1	2	1	0	17	23

### **Notice of Disclaimer**

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### **Waiver of Liability**

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***Environmental FirstSearch  
Site Information Report***

**Request Date:** 07-23-07  
**Requestor Name:** Parsons Engineering  
**Standard:** ASTM-05 PARSONS

**Search Type:** AREA  
0.02 sq mile(s)  
**Job Number:** 904283  
**Filtered Report**

**Target Site:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

***Demographics***

<b>Sites:</b> 23	<b>Non-Geocoded:</b> 17	<b>Population:</b> NA
<b>Radon:</b> NA		

***Site Location***

	<u>Degrees (Decimal)</u>	<u>Degrees (Min/Sec)</u>	<u>UTMs</u>
<b>Longitude:</b>	-157.968886	-157:58:8	<b>Easting:</b> 606914.581
<b>Latitude:</b>	21.352793	21:21:10	<b>Northing:</b> 2361404.31
			<b>Zone:</b> 4

***Comment***

**Comment:**

***Additional Requests/Services***

**Adjacent ZIP Codes:** 1 Mile(s)

**Services:**

ZIP		ST	Dist/Dir	Sel
Code	City Name			
96706	EWA BEACH	HI	0.70 SW	Y
96797	WAIPAHU	HI	0.02 NW	Y
96818	HONOLULU	HI	0.20 SE	Y
96860	PEARL HARBOR	HI	0.07 NE	Y

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

***Environmental FirstSearch  
Sites Summary Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844

**TOTAL:** 23      **GEOCODED:** 6      **NON GEOCODED:** 17      **SELECTED:** 23

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	LANDUSE	NAVY DOD PEARL HARBOR NAVAL STATIO 45982	HI	0.00 --	1
1	WETLANDS	NATIONAL WETLANDS INVENTORY NWI-HI-1666/E1OWL	HI	0.00 --	2
2	LANDUSE	NAVY DOD PEARL HARBOR NAVAL STATIO 45975	HI	0.12 NE	3
3	FEDWELLS	3-2158-02 W227 WAIPI FW-HI-1352/USGS GROUNDWATER INV	HI	0.21 NW	4
4	FEDWELLS	3-2158-01 W226 WAIPI FW-HI-1353/USGS GROUNDWATER INV	HI	0.23 NW	5
5	SCHOOL	HICKAM SCHOOL HI-31985	HI	0.45 SE	6

# *Environmental FirstSearch*

## *Sites Summary Report*

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844

**TOTAL:** 23      **GEOCODED:** 6      **NON GEOCODED:** 17      **SELECTED:** 23

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
6	ERNS	USN - NS PEARL HARBOR 321640/FIXED FACILITY	BLDG NO. 3 FORD ISLAND, NAV PEARL HARBOR HI 96860	NON GC	
7	FINDS	SPECIAL PROJECT R34-03 REPAIRS 110024878202/FRS	FORD ISLAND, WHARF F12-F13 PEARL HARBOR HI 96860	NON GC	
8	FINDS	3 FORD ISLAND, NAVAL STATION, PEAR 110027170754/FRS	3 FORD ISLAND PEARL HARBOR HI 96860	NON GC	
9	HISTSITES	USS ARIZONA WRECK 89001083/STRUCTURE	OFF FORD ISLAND, PEARL HARB HONOLULU HI	NON GC	
10	HISTSITES	USS UTAH WRECK 89001084/STRUCTURE	OFF FORD ISLAND, PEARL HARB HONOLULU HI	NON GC	
11	LUST	LIFT STATION FI-047 9-103808	RANGER LOOP ON FORD ISLAND PEARL HARBOR HI 96860	NON GC	
11	LUST	NAVAL OCEAN PROCESSING FACILITY 9-100990	BOX 1395, FORD ISLAND, NS 7 PEARL HARBOR HI 96860	NON GC	
12	NCDB	SUBMARINE TRNG CENTER, BLDG 39-2ND NCDB-0603-003620/TSCA	FORD ISLAND, PEARL HARBOR PEARL HARBOR HI 96860	NON GC	
13	NCDB	USS MISSOURI NCDB-0801-071260/TSCA	PIER F-5 FORD ISLAND HONOLULU HI 96818	NON GC	
15	RCRAGN	SEAL DELIVERY VEHICLE TEAM ONE HIR000064493/SGN	FORD ISLAND BLDG 130 PEARL HARBOR HI 96860	NON GC	
16	RCRAGN	NAVY PWC - FORD ISLAND HI0000449199/LGN	FORD ISLAND PEARL HARBOR HI 96818	NON GC	
18	RCRANLR	SEAL DELIVERY VEHICLE TEAM ONE HIR000064493/NLR	FORD ISLAND BLDG 130 PEARL HARBOR HI 96860	NON GC	
19	RELEASES	USN - NAVSTA PEARL HARBOR 494836/FIXED FACILITY	FORD ISLAND BLDG 44 PEARL HARBOR HI 96860	NON GC	
20	UST	NAVAL SUBMARINE TRAINING CTR PAC 9-100969/CURRENTLY IN USE	FORD ISLAND SCHOOL FACILITI PEARL HARBOR HI 96860	NON GC	
21	UST	LIFT STATION FI-047 9-103808/CURRENTLY IN USE	RANGER LOOP ON FORD ISLAND PEARL HARBOR HI 96860	NON GC	
22	UST	NAVAL OCEAN PROCESSING FACILITY 9-100990/PERMANENTLY OUT OF U	BOX 1395, FORD ISLAND, NS 7 PEARL HARBOR HI 96860	NON GC	
23	UST	NAVAL AIR STATION - FORD ISLAND 9-102630/PERMANENTLY OUT OF U	FORD ISLAND, BLDG 88 TANK 6 PEARL HARBOR HI 96860	NON GC	

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**LANDUSE**

**SEARCH ID:** 3                      **DIST/DIR:** 0.00 --                      **MAP ID:** 1

<b>NAME:</b> NAVY DOD PEARL HARBOR NAVAL STATION	<b>REV:</b> 1/27/05
<b>ADDRESS:</b> HI	<b>ID1:</b> 45982
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b>
	<b>PHONE:</b>

**FEDERAL LAND INFORMATION**

<b>NAME:</b>	PEARL HARBOR NAVAL STATION
<b>FEATURE:</b>	NAVY DOD
<b>ADMINISTERING AGENCY:</b>	DOD
<b>STATE FIPS:</b>	15
<b>AREA:</b>	0.001
<b>PERIMETER:</b>	0.18

**WETLANDS**

**SEARCH ID:** 1                      **DIST/DIR:** 0.00 --                      **MAP ID:** 2

<b>NAME:</b> NATIONAL WETLANDS INVENTORY	<b>REV:</b> 2/27/02
<b>ADDRESS:</b> HI	<b>ID1:</b> NWI-HI-1666
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> E1OWL
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AREA:</b>	12849569.07
<b>PERIMETER:</b>	67262.89
<b>WETC:</b>	6
<b>WETC_ID:</b>	22
<b>ATTRIBUTE:</b>	E1OWL

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

LANDUSE

<b>SEARCH ID:</b> 2	<b>DIST/DIR:</b> 0.12 NE	<b>MAP ID:</b> 3
---------------------	--------------------------	------------------

<b>NAME:</b> NAVY DOD PEARL HARBOR NAVAL STATION	<b>REV:</b> 1/27/05
<b>ADDRESS:</b> HI	<b>ID1:</b> 45975
	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b>
	<b>PHONE:</b>

**FEDERAL LAND INFORMATION**

<b>NAME:</b>	PEARL HARBOR NAVAL STATION
<b>FEATURE:</b>	NAVY DOD
<b>ADMINISTERING AGENCY:</b>	DOD
<b>STATE FIPS:</b>	15
<b>AREA:</b>	0.001
<b>PERIMETER:</b>	0.152

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**FEDWELLS**

**SEARCH ID:** 5                      **DIST/DIR:** 0.21 NW                      **MAP ID:** 4

<b>NAME:</b> 3-2158-02 W227 WAIPI	<b>REV:</b> 12/28/06
<b>ADDRESS:</b> HI	<b>ID1:</b> FW-HI-1352
HONOLULU COUNTY HI	<b>ID2:</b> 212130157583201
<b>CONTACT:</b>	<b>STATUS:</b> USGS GROUNDWATER INV
	<b>PHONE:</b>

**SITE INFORMATION**

<b>AGENCY:</b>	US GEOLOGICAL SURVEY
<b>SITE ID:</b>	212130157583201
<b>SITE NAME:</b>	3-2158-02 W227 WAIPI
<b>SITE TYPE :</b>	GROUND-WATER OTHER THAN SPRING
<b>COUNTY :</b>	HONOLULU
<b>COUNTRY :</b>	US
<b>LAND NET LOCATION DESC:</b>	
<b>LOCATION MAP:</b>	10 PUULOA
<b>LOCATION MAP SCALE:</b>	24000
<b>GAGE/LAND SURFACE ALTITUDE:</b>	14.00
<b>METHOD ALTITUDE DETERMINED:</b>	M
<b>ALTITUDE ACCURACY:</b>	2
<b>ALTITUDE DATUM:</b>	HILOCAL
<b>HYDROLOGIC UNIT :</b>	OAHU
<b>TOPOGRAPHIC SETTING :</b>	
<b>DATE OF FIRST CONSTRUCTION:</b>	//
<b>DATE SITE ESTABLISHED:</b>	//
<b>MEAN GREENWICH TIME OFFSET:</b>	HST
<b>LOCAL STANDARD TIME FLAG:</b>	N
<b>TYPE OF GROUNDWATER SITE:</b>	W
<b>PRIMARY AQUIFER :</b>	
<b>AQUIFER TYPE :</b>	
<b>WELL_DEPTH VA:</b>	629
<b>HOLE DEPTH:</b>	
<b>DEPTH DATA SOURCE:</b>	
<b>PROJECT NUMBER:</b>	

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**SEARCH ID:**    4                      **DIST/DIR:**     0.23 NW                      **MAP ID:**        5

DATE OF FIRST CONSTRUCTION:	//
DATE SITE ESTABLISHED:	//
MEAN GREENWICH TIME OFFSET:	HST
LOCAL STANDARD TIME FLAG:	N
TYPE OF GROUNDWATER SITE:	W
PRIMARY AQUIFER :	
AQUIFER TYPE :	
WELL_DEPTH VA:	106
HOLE DEPTH:	
DEPTH DATA SOURCE:	
PROJECT NUMBER:	

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

SCHOOL																			
<table style="width: 100%;"><tr><td style="width: 33%;"><b>SEARCH ID:</b> 6</td><td style="width: 33%;"><b>DIST/DIR:</b> 0.45 SE</td><td style="width: 33%;"><b>MAP ID:</b> 6</td></tr><tr><td><table style="width: 100%;"><tr><td style="width: 50%;"><b>NAME:</b> HICKAM SCHOOL</td><td style="width: 50%;"><b>REV:</b> 1/1/05</td></tr><tr><td><b>ADDRESS:</b> HI</td><td><b>ID1:</b> HI-31985</td></tr><tr><td>HONOLULU</td><td><b>ID2:</b></td></tr><tr><td><b>CONTACT:</b></td><td><b>STATUS:</b></td></tr><tr><td></td><td><b>PHONE:</b></td></tr></table></td><td colspan="2"></td></tr><tr><td colspan="3" style="text-align: center;">DETAILS NOT AVAILABLE</td></tr></table>	<b>SEARCH ID:</b> 6	<b>DIST/DIR:</b> 0.45 SE	<b>MAP ID:</b> 6	<table style="width: 100%;"><tr><td style="width: 50%;"><b>NAME:</b> HICKAM SCHOOL</td><td style="width: 50%;"><b>REV:</b> 1/1/05</td></tr><tr><td><b>ADDRESS:</b> HI</td><td><b>ID1:</b> HI-31985</td></tr><tr><td>HONOLULU</td><td><b>ID2:</b></td></tr><tr><td><b>CONTACT:</b></td><td><b>STATUS:</b></td></tr><tr><td></td><td><b>PHONE:</b></td></tr></table>	<b>NAME:</b> HICKAM SCHOOL	<b>REV:</b> 1/1/05	<b>ADDRESS:</b> HI	<b>ID1:</b> HI-31985	HONOLULU	<b>ID2:</b>	<b>CONTACT:</b>	<b>STATUS:</b>		<b>PHONE:</b>			DETAILS NOT AVAILABLE		
<b>SEARCH ID:</b> 6	<b>DIST/DIR:</b> 0.45 SE	<b>MAP ID:</b> 6																	
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<b>NAME:</b> HICKAM SCHOOL	<b>REV:</b> 1/1/05																		
<b>ADDRESS:</b> HI	<b>ID1:</b> HI-31985																		
HONOLULU	<b>ID2:</b>																		
<b>CONTACT:</b>	<b>STATUS:</b>																		
	<b>PHONE:</b>																		
DETAILS NOT AVAILABLE																			

**Environmental FirstSearch**  
**Site Detail Report**

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

ERNS

**SEARCH ID:** 10                      **DIST/DIR:** NON GC                      **MAP ID:**

<b>NAME:</b> USN - NS PEARL HARBOR	<b>REV:</b> 4/8/93
<b>ADDRESS:</b> BLDG NO. 3 FORD ISLAND, NAVAL STATION PEARL HARBOR	<b>ID1:</b> 321640
PEARL HARBOR HI 96860	<b>ID2:</b>
<b>CONTACT:</b>	<b>STATUS:</b> FIXED FACILITY
	<b>PHONE:</b>

**SPILL INFORMATION**

**DATE OF SPILL:** 4/8/1993                      **TIME OF SPILL:** 1100

**PRODUCT RELEASED (1):** ASBESTOS  
**QUANTITY (1):** 50  
**UNITS (1):** LBS

**PRODUCT RELEASED (2):**  
**QUANTITY (2):**  
**UNITS (2):**

**PRODUCT RELEASED (3):**  
**QUANTITY (3):**  
**UNITS (3):**

**MEDIUM/MEDIA AFFECTED**

<b>AIR:</b> NO	<b>GROUNDWATER:</b> NO
<b>LAND:</b> NO	<b>FIXED FACILITY:</b> YES
<b>WATER:</b> NO	<b>OTHER:</b> NO
<b>WATERBODY AFFECTED BY RELEASE:</b>	

**CAUSE OF RELEASE**

<b>DUMPING:</b> NO	<b>EQUIPMENT FAILURE:</b> NO
<b>NATURAL PHENOMENON:</b> NO	<b>OPERATOR ERROR:</b> NO
<b>OTHER CAUSE:</b> YES	<b>TRANSP. ACCIDENT:</b> NO
<b>UNKNOWN:</b> NO	

**ACTIONS TAKEN:** THE BUILDING AND DUMPSTER HAS BEEN SEALED

**RELEASE DETECTION:** ASBESTOS WAS DISCOVERED IN MATERIAL FROM FLOOR TILES \*\*

**MISC. NOTES:** \*\* FROM FLOOR TILES THAT HAS BEEN REMOVED DURING RENOVATION.

**DISCHARGER INFORMATION**

<b>DISCHARGER ID:</b> 321640	<b>DUN and BRADSTREET :</b>
<b>TYPE OF DISCHARGER:</b> FEDERAL GOVERNMENT	
<b>NAME OF DISCHARGER:</b> USN - NS PEARL HARBOR	
<b>ADDRESS:</b> POB 21	
PEARL HARBOR HI 96860	

# Environmental FirstSearch

## Site Detail Report

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

### FINDS

<b>SEARCH ID:</b> 12	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> SPECIAL PROJECT R34-03 REPAIRS <b>ADDRESS:</b> FORD ISLAND, WHARF F12-F13 PEARL HARBOR HI 96860 HONOLULU <b>CONTACT:</b>	<b>REV:</b> 11/1/06 <b>ID1:</b> 110024878202 <b>ID2:</b> <b>STATUS:</b> FRS <b>PHONE:</b>
---	---

**FACILITY REGISTRATION INFORMATION:**

<b>PROGRAM:</b> PCS <b>PROVIDED BY:</b> FEDERAL AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> NPDES NON-MAJOR - A CLEAN WATER ACT (CWA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NON-MAJOR DISCHARGER OF POLLUTANTS INTO WATERS OF THE UNITED STATES.	<b>PROGRAM ID:</b> HIF001696 <b>AGENCY INTERESTED:</b> <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> NPDES PERMIT <b>LAST EXTRACTED:</b> 6/23/2006 8:07:53 PM
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<b>PROGRAM:</b> FRS <b>PROVIDED BY:</b> FEDERAL AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 6/23/2006 8:07:53 PM <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> FACILITY -	<b>PROGRAM ID:</b> 110024878202 <b>AGENCY INTERESTED:</b> 6/23/2006 8:07:52 PM <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> PCS <b>LAST EXTRACTED:</b>
---	---

**SITE TYPE:** STATIONARY  
**INTEREST STATUS:** ACTIVE  
**DATA QUALITY:** V  
**LOCATION DESC:**  
**ADDRESS TYPE:** IRREGULAR  
**LAST REPORTED:**  
**POSTED TO DATABASE:** 6/23/2006 8:07:53 PM  
**DATA UPDATED:** 6/24/2006 2:08:21 PM  
**ENTERED PERSON/METHOD:** ESZ  
**PARENT REG ID:**  
**CONFIDENCE IN ADDR:**  
**ENFORCEMENT SENSITIVE:** N  
**REQ MANUAL REVIEW:**  
**REASON MAN REVIEW:**  
**SMALL BUS POLICY:**  
**ENFORCEMENT ACTION:**  
**DATA PUB ACCESS:** YES  
**INTERNAL SYS ID:**

**FEDERAL FACILITY:** NO  
**FEDERAL AGENCY:**  
**TRIBAL LAND:** NO  
**TRIBAL LAND NAME:**  
**CONGRESSIONAL DIST:**  
**LEGISLATIVE DIST:**  
**HYDROLOGICAL UNTIS:**  
**EPA REGION:** 09  
**AIRSHED:**  
**CENSUS BLOCK:**

# Environmental FirstSearch

## Site Detail Report

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

### FINDS

**SEARCH ID:** 11      **DIST/DIR:** NON GC      **MAP ID:**

<b>NAME:</b> 3 FORD ISLAND, NAVAL STATION, PEARL HARBOR <b>ADDRESS:</b> 3 FORD ISLAND PEARL HARBOR HI 96860 HONOLULU <b>CONTACT:</b>	<b>REV:</b> 11/1/06 <b>ID1:</b> 110027170754 <b>ID2:</b> <b>STATUS:</b> FRS <b>PHONE:</b>
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**FACILITY REGISTRATION INFORMATION:**

<b>PROGRAM:</b> HEER-FRS <b>PROVIDED BY:</b> STATE AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> STATE MASTER -	<b>PROGRAM ID:</b> X100355 <b>AGENCY INTERESTED:</b> <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> HEER-FRS <b>LAST EXTRACTED:</b> 10/30/2006 6:50:23 PM
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<b>PROGRAM:</b> FRS <b>PROVIDED BY:</b> FEDERAL AGENCY <b>AGENCY INT QUAL:</b> <b>INT END QUAL:</b> <b>LAST REPORTED:</b> 10/30/2006 6:50:23 PM <b>ENFORCEMENT ACT:</b> <b>REG PROGRAM:</b> FACILITY -	<b>PROGRAM ID:</b> 110027170754 <b>AGENCY INTERESTED:</b> 10/30/2006 6:50:23 PM <b>INTEREST ENDED:</b> <b>SOURCE OF DATA:</b> HEER-FRS <b>LAST EXTRACTED:</b>
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**SITE TYPE:** FACILITY  
**INTEREST STATUS:** ACTIVE  
**DATA QUALITY:** V  
**LOCATION DESC:** NAVAL STATION AUSTRALIAN SUBMARINE RANKINS  
**ADDRESS TYPE:** REGULAR URBAN  
**LAST REPORTED:**  
**POSTED TO DATABASE:** 10/30/2006 6:50:23 PM  
**DATA UPDATED:**  
**ENTERED PERSON/METHOD:** REFRESH  
**PARENT REG ID:**  
**CONFIDENCE IN ADDR:**  
**ENFORCEMENT SENSITIVE:**  
**REQ MANUAL REVIEW:**  
**REASON MAN REVIEW:**  
**SMALL BUS POLICY:**  
**ENFORCEMENT ACTION:**  
**DATA PUB ACCESS:** YES  
**INTERNAL SYS ID:**

**FEDERAL FACILITY:** NO  
**FEDERAL AGENCY:**  
**TRIBAL LAND:**  
**TRIBAL LAND NAME:**  
**CONGRESSIONAL DIST:**  
**LEGISLATIVE DIST:**  
**HYDROLOGICAL UNTIS:**  
**EPA REGION:** 09  
**AIRSHED:**  
**CENSUS BLOCK:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**HISTSITES**

**SEARCH ID:** 19

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** USS ARIZONA WRECK  
**ADDRESS:** OFF FORD ISLAND, PEARL HARBOR  
HONOLULU HI

**REV:** 11/15/05  
**ID1:** 89001083  
**ID2:**  
**STATUS:** STRUCTURE  
**PHONE:**

**CONTACT:**

**SITE INFORMATION:**

**CERTIFICATION:** LISTED IN THE NATIONAL REGISTER  
**DATE OF PRIMARY CERTIFICATION:** 1989-05-05  
**SIZE OF PROPERTY IN ACRES:** 9

**NUMBER OF CONTRIBUTING BUILDINGS:** 000000  
**NUMBER OF CONTRIBUTING SITES:** 000000  
**NUMBER OF CONTRIBUTING STRUCTURES:** 000001  
**NUMBER OF CONTRIBUTING OBJECTS:** 000000  
**NUMBER OF NON-CONTRIBUTING BUILDINGS:** 000000  
**NUMBER OF NON-CONTRIBUTING SITES:** 000000  
**NUMBER OF NON-CONTRIBUTING STRUCTURES:** 000000  
**NUMBER OF NON-CONTRIBUTING OBJECTS:** 000000

**OWNER TYPE:** FEDERAL

**CURRENT FUNCTION:** LANDSCAPE

**HISTORIC FUNCTION:** NAVAL FACILITY

**LEVEL OF SIGNIFICANCE:** NATIONAL

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**HISTSITES**

**SEARCH ID:** 20

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** USS UTAH WRECK  
**ADDRESS:** OFF FORD ISLAND, PEARL HARBOR  
HONOLULU HI

**REV:** 11/15/05  
**ID1:** 89001084  
**ID2:**  
**STATUS:** STRUCTURE  
**PHONE:**

**CONTACT:**

**SITE INFORMATION:**

**CERTIFICATION:** LISTED IN THE NATIONAL REGISTER  
**DATE OF PRIMARY CERTIFICATION:** 1989-05-05  
**SIZE OF PROPERTY IN ACRES:** 9

**NUMBER OF CONTRIBUTING BUILDINGS:** 000000  
**NUMBER OF CONTRIBUTING SITES:** 000000  
**NUMBER OF CONTRIBUTING STRUCTURES:** 000001  
**NUMBER OF CONTRIBUTING OBJECTS:** 000000  
**NUMBER OF NON-CONTRIBUTING BUILDINGS:** 000000  
**NUMBER OF NON-CONTRIBUTING SITES:** 000000  
**NUMBER OF NON-CONTRIBUTING STRUCTURES:** 000000  
**NUMBER OF NON-CONTRIBUTING OBJECTS:** 000000

**OWNER TYPE:** FEDERAL

**CURRENT FUNCTION:** VACANT/NOT IN USE

**HISTORIC FUNCTION:** NAVAL FACILITY

**LEVEL OF SIGNIFICANCE:** NATIONAL

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

LUST

<b>SEARCH ID:</b> 17	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> LIFT STATION FI-047 <b>ADDRESS:</b> RANGER LOOP ON FORD ISLAND PEARL HARBOR HI 96860	<b>REV:</b> 07/28/06 <b>ID1:</b> 9-103808 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b>
---	--

**CONTACT:**

<b>Event ID Number:</b>	060028
<b>Facility ID Number:</b>	9-103808
<b>Status Date:</b>	6/1/2006
<b>Status:</b>	Confirmed Release
<b>Project Officer</b>	(b)

LUST

<b>SEARCH ID:</b> 18	<b>DIST/DIR:</b> NON GC	<b>MAP ID:</b>
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<b>NAME:</b> NAVAL OCEAN PROCESSING FACILITY <b>ADDRESS:</b> BOX 1395, FORD ISLAND, NS 77-1, 77-2, 77-3 PEARL HARBOR HI 96860	<b>REV:</b> 07/28/06 <b>ID1:</b> 9-100990 <b>ID2:</b> <b>STATUS:</b> <b>PHONE:</b>
---	--

**CONTACT:**

<b>Event ID Number:</b>	900048
<b>Facility ID Number:</b>	9-100990
<b>Status Date:</b>	5/27/2005
<b>Status:</b>	Site Cleanup Completed
<b>Project Officer</b>	(b) (6)

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

NCDB

**SEARCH ID:** 23

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** SUBMARINE TRNG CENTER, BLDG 39-2ND FLOOR  
**ADDRESS:** FORD ISLAND, PEARL HARBOR  
PEARL HARBOR HI 96860

**REV:** 4/27/07  
**ID1:** NCDB-0603-003620  
**ID2:** 200206275810 1  
**STATUS:** TSCA  
**PHONE:**

**CONTACT:**

**SITE INFORMATION**

**EPA REGION:** 09  
**INSPECTOR ID:** 200206275810 1  
**INSPECTION DATE:** 6/27/2002  
**INSPECTOR NAME:** RBILAN  
**LEGISLATION CODE:** T

**FACILITY FUNCTION:** US - USER

**INVESTIGATION TYPE:** AES - AHERA, ENFORCEMENT, STATE CONDUCTED

**REASON:** NSS - NEUTRAL SCHEME, STATE

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

NCDB

**SEARCH ID:** 22

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** USS MISSOURI  
**ADDRESS:** PIER F-5 FORD ISLAND  
HONOLULU HI 96818  
HONOLULU  
**CONTACT:**

**REV:** 4/27/07  
**ID1:** NCDB-0801-071260  
**ID2:** 199811169ST03 1  
**STATUS:** TSCA  
**PHONE:**

**SITE INFORMATION**

<b>EPA REGION:</b>	09	<b>INSPECTION REG OR ST:</b>	09
<b>INSPECTOR ID:</b>	9ST03	<b>INSPECTION DATE:</b>	11/16/98
<b>INSPECTOR NAME:</b>	(b) (6)	<b>NUMBER OF SAMPLES:</b>	0
<b>NUMBER OF AUDITS:</b>	0	<b>DUNN and BRAD NUMBER:</b>	
<b>FEDERAL FACILITY:</b>	N	<b>LEGISLATION CODE:</b>	T
<b>NUMBER OF SCHOOLS:</b>	0	<b>SCHOOL TYPE:</b>	
<b>EPA PESTICIDE ID:</b>		<b>EPA FIFRA REG ID:</b>	

**FACILITY FUNCTION:** US - USER

**INVESTIGATION TYPE:** 6PA - SECTION 6 PCB SEE CONDUCTED

**REASON:** FCA - FOR CAUSE, ASSOCIATED

**REFERRAL TYPE :**

**PRINT INFO:** USS MISSOURI MEMORIAL ASSOCIATION, INC.  
P.O. BOX 6339  
HONOLULU HI 96818-

**SIC INFORMATION:**

**SIC 1:**

**SIC 2:**

**SIC 3:**

**SIC 4:**

**SIC 5:**

**SIC 6:**

**SAMPLE INFORMATION**

**CASE REVIEW INFORMATION:**

<b>SAMPLE NUMBER:</b>	0	<b>ACTION WARRANTED:</b>	N
<b>DOCKET NUMBER:</b>		<b>CASE NUMBER:</b>	98-28
<b>START DATE:</b>	11/16/98	<b>COMPLETION DATE:</b>	3/28/99

**IMPORT INFORMATION**

- Continued on next page -

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

NCDB

**SEARCH ID:** 22

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** USS MISSOURI  
**ADDRESS:** PIER F-5 FORD ISLAND  
HONOLULU HI 96818  
HONOLULU

**REV:** 4/27/07  
**ID1:** NCDB-0801-071260  
**ID2:** 199811169ST03 1  
**STATUS:** TSCA  
**PHONE:**

**CONTACT:**

**REFERRAL INFORMATION:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

RCRAGN

**SEARCH ID:** 8

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** SEAL DELIVERY VEHICLE TEAM ONE  
**ADDRESS:** FORD ISLAND BLDG 130  
PEARL HARBOR HI 96860

**REV:** 8/8/01  
**ID1:** HIR000064493  
**ID2:**  
**STATUS:** SGN  
**PHONE:**

**CONTACT:**

**SITE INFORMATION**

**UNIVERSE NAME:**

SGN: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

**SIC INFORMATION:**

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

RCRAGN

**SEARCH ID:** 7

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** NAVY PWC - FORD ISLAND  
**ADDRESS:** FORD ISLAND  
PEARL HARBOR HI 96860

**REV:** 6/6/06  
**ID1:** HI0000449199  
**ID2:**  
**STATUS:** LGN  
**PHONE:** 8084711171 212

**CONTACT:** (b) (6)

**SITE INFORMATION**

**CONTACT INFORMATION:** (b) (6)  
USNAVY P W C PEARL HBR N465  
PEARL HARBOR HI 968605470

**PHONE:** 8084714835

**UNIVERSE INFORMATION:**

**NAIC INFORMATION**

92811 - NATIONAL SECURITY  
48832 - MARINE CARGO HANDLING  
92811 - NATIONAL SECURITY

**ENFORCEMENT INFORMATION:**

**AGENCY:** E - EPA                      **DATE:** 12/9/1996  
**TYPE:** 120 - WRITTEN INFORMAL

**AGENCY:** E - EPA                      **DATE:** 12/9/1996  
**TYPE:** 120 - WRITTEN INFORMAL

**VIOLATION INFORMATION:**

**VIOLATION NUMBER:** 0001                      **RESPONSIBLE:** E - EPA  
**DETERMINED:** 11/25/1996                      **DETERMINED BY:** E - EPA  
**CITATION:**  
**RESOLVED:** 3/13/1997  
**TYPE:** GENERATOR-OTHER REQUIREMENTS

**VIOLATION NUMBER:** 0002                      **RESPONSIBLE:** E - EPA  
**DETERMINED:** 11/25/1996                      **DETERMINED BY:** E - EPA  
**CITATION:**  
**RESOLVED:** 3/13/1997  
**TYPE:** GENERATOR-PRE-TRANSPORT REQUIREMENTS

**VIOLATION NUMBER:** 0003                      **RESPONSIBLE:** E - EPA  
**DETERMINED:** 11/25/1996                      **DETERMINED BY:** E - EPA  
**CITATION:**  
**RESOLVED:** 3/13/1997  
**TYPE:** GENERATOR-LAND BAN REQUIREMENTS

**HAZARDOUS WASTE INFORMATION:**

- Continued on next page -

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

RCRAGN

**SEARCH ID:** 7

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** NAVY PWC - FORD ISLAND  
**ADDRESS:** FORD ISLAND  
PEARL HARBOR HI 96860

**REV:** 6/6/06  
**ID1:** HI0000449199  
**ID2:**  
**STATUS:** LGN  
**PHONE:** 8084711171 212

**CONTACT:** (b) (6)

Benzene  
Corrosive waste  
Ignitable waste  
D000  
Chromium  
Chlordane  
Cadmium

The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures/bl

Mercury

The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a to

The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/ blends containing, b

The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane

Barium

Tetrachloroethylene

Silver

Selenium

Reactive waste

Methyl ethyl ketone

1,2-Dichloroethane

Lead

Ethane, 1,1,1-trichloro- (OR) Methyl chloroform

Arsenic

The following spent non-halogenated solvents: cresols, cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-hal

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

RCRANLR

**SEARCH ID:** 9

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** SEAL DELIVERY VEHICLE TEAM ONE  
**ADDRESS:** FORD ISLAND BLDG 130  
PEARL HARBOR HI 96860  
HONOLULU  
**CONTACT:** (b) (6)

**REV:** 6/6/06  
**ID1:** HIR000064493  
**ID2:**  
**STATUS:** NLR  
**PHONE:** 8084711171

**SITE INFORMATION**

**CONTACT INFORMATION:** (b) (6)  
BLDG 130 WASP AVE FORD ISLAND  
PEARL HARBOR HI 96860

**PHONE:** 8084711171

**UNIVERSE INFORMATION:**

**NAIC INFORMATION**

**ENFORCEMENT INFORMATION:**

**VIOLATION INFORMATION:**

**HAZARDOUS WASTE INFORMATION:**

Ignitable waste  
Corrosive waste

**Environmental FirstSearch**  
**Site Detail Report**

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

**RELEASES**

**SEARCH ID:** 21

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** USN - NAVSTA PEARL HARBOR  
**ADDRESS:** FORD ISLAND BLDG 44  
PEARL HARBOR HI 96860  
OAHU  
**CONTACT:**

**REV:** 6/10/96  
**ID1:** 494836  
**ID2:**  
**STATUS:** FIXED FACILITY  
**PHONE:**

**SPILL INFORMATION**

**DATE OF SPILL:** 6/10/96 **TIME OF SPILL:** 1130

**PRODUCT RELEASED (1):** OIL: DIESEL  
**QUANTITY (1):** 50  
**UNITS (1):** GAL

**PRODUCT RELEASED (2):**  
**QUANTITY (2):**  
**UNITS (2):**

**PRODUCT RELEASED (3):**  
**QUANTITY (3):**  
**UNITS (3):**

**MEDIUM/MEDIA AFFECTED**

<b>AIR:</b>	NO	<b>GROUNDWATER:</b>	NO
<b>LAND:</b>	NO	<b>FIXED FACILITY:</b>	NO
<b>WATER:</b>	YES	<b>OTHER:</b>	NO
<b>WATERBODY AFFECTED BY RELEASE:</b>		PEARL HARBOR	

**CAUSE OF RELEASE**

<b>DUMPING:</b>	NO	<b>EQUIPMENT FAILURE:</b>	NO
<b>NATURAL PHENOMENON:</b>	NO	<b>OPERATOR ERROR:</b>	NO
<b>OTHER CAUSE:</b>	NO	<b>TRANSP. ACCIDENT:</b>	NO
<b>UNKNOWN:</b>	NO		

**ACTIONS TAKEN:** RELEASE STOPPED/BOOM TO BE DEPLOYED  
**RELEASE DETECTION:** 2 IN FUEL SUPPLY LINE ON A PIER/LEAKING FITTING  
**MISC. NOTES:** WILL NOTIFY: LEPC, CERC

**DISCHARGER INFORMATION**

<b>DISCHARGER ID:</b>	494836	<b>DUN and BRADSTREET :</b>
<b>TYPE OF DISCHARGER:</b>	FEDERAL GOVERNMENT	
<b>NAME OF DISCHARGER:</b>	USN - NAVSTA PEARL HARBOR	
<b>ADDRESS:</b>	BOX 21 PEARL HARBOR HI 96860-6000	

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

UST

**SEARCH ID:** 16

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** NAVAL SUBMARINE TRAINING CTR PAC  
**ADDRESS:** FORD ISLAND SCHOOL FACILITIES  
PEARL HARBOR HI 96860

**REV:** 01/15/00  
**ID1:** 9-100969  
**ID2:**  
**STATUS:** CURRENTLY IN USE  
**PHONE:**

**CONTACT:**

**Tank ID Number:** 001  
**Tank Status Description:** Currently in Use  
**Tank Capacity:** 500  
**Substance Description:** Diesel  
**Construction Material:** Concrete  
**Date Installed:** 2/6/64  
**Date Closed:**

**Owner Name:** NAVAL SUBMARINE TRAINING CENTER PACIFIC Pearl Harbor HI 96860

**Tank ID Number:** 002  
**Tank Status Description:** Currently in Use  
**Tank Capacity:** 5000  
**Substance Description:** Diesel  
**Construction Material:** Other  
**Date Installed:** 2/6/64  
**Date Closed:**

**Owner Name:** NAVAL SUBMARINE TRAINING CENTER PACIFIC Pearl Harbor HI 96860

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

UST

**SEARCH ID:** 13

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** LIFT STATION FI-047

**REV:** 08/04/06

**ADDRESS:** RANGER LOOP ON FORD ISLAND  
PEARL HARBOR HI 96860

**ID1:** 9-103808

**ID2:**

**STATUS:** CURRENTLY IN USE

**CONTACT:**

**PHONE:**

**Tank ID Number:**

*1*

**Tank Status Description:**

*Currently In Use*

**Tank Capacity:**

*500*

**Substance Description:**

*Not Listed*

**Construction Material:**

**Date Installed:**

**Date Closed:**

**Owner Name:**

*US Navy - Commandar Navy Region Hawaii 850 Ticonderoga St, Ste 110 Pearl*

*Harbor HI 96860*

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

UST

**SEARCH ID:** 15

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** NAVAL OCEAN PROCESSING FACILITY  
**ADDRESS:** BOX 1395, FORD ISLAND, NS 77-1, 77-2, 77-3  
PEARL HARBOR HI 96860

**REV:** 08/04/06  
**ID1:** 9-100990  
**ID2:**  
**STATUS:** PERMANENTLY OUT OF USE  
**PHONE:**

**CONTACT:**

**Tank ID Number:** R-1  
**Tank Status Description:** Permanently Out of Use  
**Tank Capacity:** 4000  
**Substance Description:** Diesel  
**Construction Material:** Fiberglass Reinforced Plastic  
**Date Installed:** 04/30/77  
**Date Closed:** 01/15/96

**Owner Name:** NAVAL STATION PEARL HARBOR BOX 21 Pearl Harbor HI 96860

**Tank ID Number:** R-2  
**Tank Status Description:** Permanently Out of Use  
**Tank Capacity:** 4000  
**Substance Description:** Diesel  
**Construction Material:** Fiberglass Reinforced Plastic  
**Date Installed:** 04/30/77  
**Date Closed:** 01/15/96

**Owner Name:** NAVAL STATION PEARL HARBOR BOX 21 Pearl Harbor HI 96860

**Tank ID Number:** R-3  
**Tank Status Description:** Permanently Out of Use  
**Tank Capacity:** 4000  
**Substance Description:** Diesel  
**Construction Material:** Fiberglass Reinforced Plastic  
**Date Installed:** 04/30/77  
**Date Closed:** 01/15/96

**Owner Name:** NAVAL STATION PEARL HARBOR BOX 21 Pearl Harbor HI 96860

***Environmental FirstSearch  
Site Detail Report***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING  
HONOLULU HI 96844

**JOB:** 904283

UST

**SEARCH ID:** 14

**DIST/DIR:** NON GC

**MAP ID:**

**NAME:** NAVAL AIR STATION - FORD ISLAND  
**ADDRESS:** FORD ISLAND, BLDG 88 TANK 63  
PEARL HARBOR HI 96860

**REV:** 08/04/06  
**ID1:** 9-102630  
**ID2:**  
**STATUS:** PERMANENTLY OUT OF USE  
**PHONE:**

**CONTACT:**

**Tank ID Number:** 63  
**Tank Status Description:** *Permanently Out of Use*  
**Tank Capacity:** 2500  
**Substance Description:** *Not Listed*  
**Construction Material:** *Not Listed*  
**Date Installed:**  
**Date Closed:**

**Owner Name:** US NAVY - COMNAVREG - HI 517 RUSSELL AVE, SUITE 110 Pearl Harbor HI  
96860

## Environmental FirstSearch Descriptions

**NPL: EPA NATIONAL PRIORITY LIST** - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.

A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

FINAL - Currently on the Final NPL

PROPOSED - Proposed for NPL

**NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset** - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

DELISTED - Deleted from the Final NPL

**CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)**- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

PART OF NPL- Site is part of NPL site

DELETED - Deleted from the Final NPL

FINAL - Currently on the Final NPL

NOT PROPOSED - Not on the NPL

NOT VALID - Not Valid Site or Incident

PROPOSED - Proposed for NPL

REMOVED - Removed from Proposed NPL

SCAN PLAN - Pre-proposal Site

WITHDRAWN - Withdrawn

**NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES** - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

NFRAP – No Further Remedial Action Plan

P - Site is part of NPL site

D - Deleted from the Final NPL

F - Currently on the Final NPL

N - Not on the NPL

O - Not Valid Site or Incident

P - Proposed for NPL

R - Removed from Proposed NPL

S - Pre-proposal Site

W – Withdrawn

**RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

RCRAInfo facilities that have reported violations and subject to corrective actions.

**RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM**

**TREATMENT, STORAGE, and DISPOSAL FACILITIES.** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities that treat, store, dispose, or incinerate hazardous waste.

**RCRA GEN: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. Facilities that generate or transport hazardous waste or meet other RCRA requirements.

LGN - Large Quantity Generators

SGN - Small Quantity Generators

VGN – Conditionally Exempt Generator.

Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

**RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES** - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.

Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:

Failure to report in a timely matter.

No longer in business.

No longer in business at the listed address.

No longer generating hazardous waste materials in quantities which require reporting.

**Federal IC / EC: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS)** - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.

**FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS-** Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

**ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS)** - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

**Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES** - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

**State/Tribal IC: HI DOH INSTITUTIONAL CONTROLS LISTING**-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of sites with institutional controls.

**State/Tribal Sites: HI DOH STATE RESPONSE LISTING**-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of facilities, sites, or areas in which HEER has

an interest, has investigated, or may investigate under HRS 128D (includes CERCLIS sites).

**State/Tribal VCP:** *HI DOH* VOLUNTARY RESPONSE PROGRAM LISTING-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of sites participating in the state's Voluntary Response Program.

**State/Tribal Brownfields:** *HI DOH* STATE BROWNFIELDS LISTING-The Hawaii Department of Health's Office of Hazard Evaluation and Emergency Response (HEER) inventory of brownfields sites.

**State/Tribal LUST:** *HI DOH* LEAKING UNDERGROUND STORAGE TANKS-The Hawaii Department of Health's inventory of sites with leaking underground storage tanks.

**State/Tribal UST/AST:** *HI DOH* UNDERGROUND STORAGE TANKS- The Hawaii Department of Health's inventory of underground storage tanks.

**State ACEC:** *USFWS* US FISH AND WILDLIFE CONTACT INFORMATION - database of contact information for the US Fish and Wildlife Service loaded by zipcode.

**Wetlands:** *US FWS* NATIONAL WETLANDS INVENTORY (NWI) - database of information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This data is available for select areas of the United States.

**Floodplains:** *FEMA* FLOODPLAINS – database of 100 year and 500 year flood zone boundaries for select counties in the United States

**Receptors:** *US DOC* SENSITIVE RECEPTORS - 2005 Census Bureau's TIGER (Topologically Integrated Geographic Encoding and Referencing System) database of schools and hospitals. List of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

**Historic Landmarks:** *NPS* NATIONAL REGISTRY OF HISTORIC PLACES DATABASE - The nation's official list of cultural resources worthy of preservation. Properties listed include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

**Federal Land Use:** *USGS/EPA/FWS* FEDERAL LANDS OF THE UNITED STATES - Database of lands owned or administered by the Federal Government, including the Bureau of Land Management, the Bureau of Reclamation, the U.S. Department of Agriculture Forest Service, the Department of Defense, the U.S. Fish and Wildlife Service, the National Park Service, the Tennessee Valley Authority, and other agencies. Only areas of 640 acres or more are included. Descriptive information includes the name and type of the Federal land and the administering agency.

ENDANGERED SPECIES PROTECTION PROGRAM DATABASE – List of the Endangered Species by county and the species status./n NATIONAL WILDLIFE REGUGE DATA - database of boundaries for National Wildlife Refuges, National Fish Hatcheries, and USFWS administrative sites. Contains information regarding refuge name and contact information.

**Federal Wells:** *USGS* UNITED STATES GROUND-WATER SITES INVENTORY - Database of more than 850,000 records of wells, springs, test holes, tunnels, drains, and excavations in the United States.

**USGS Soils:** *USGS/NRCS* NATIONAL SOILS DATABASE - Database comprised of the State Soil Geographic (STATSGO) data for the conterminous United States, Soil Survey Geographic (SSURGO) and Digital Data Series Bedrock data. These databases contain information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding.

**NPDES:** *EPA* THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

**FINDS:** *EPA* FACILITY INDEX SYSTEM(FINDS)/FACILITY REGISTRY SYSTEM(FRS) - The index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. A Facility Registry System site has an FRS in the status field.

**TRIS:** *EPA* TOXIC RELEASE INVENTORY SYSTEM (TRIS)– Database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990.

**HMIRS:** *US DOT* HAZARDOUS MATERIALS INCIDENT RESPONSE SYSTEM - Database of information regarding materials, packaging, and a description of events for tracked incidents.

**NCDB:** *EPA* NATIONAL COMPLIANCE DATA BASE SYSTEM - Database of regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts an inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

**PADS:** *EPA* DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

**RADON:** *NTIS* NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

**Nuclear Permits:** *EPA/NRC* PERMITTED NUCLEAR FACILITIES - This database is a comprehensive listing of all facilities which have been issued permits for the handling of radioactive materials, in addition it also contains a complete listing of all licensed and active nuclear power plants located within the United States. THE RADINFO DATABASE - Database of basic information about facilities that are permitted and regulated for their use and handling of radioactive materials.

## Environmental FirstSearch Database Sources

**NPL: EPA** Environmental Protection Agency

*Updated quarterly*

**NPL DELISTED: EPA** Environmental Protection Agency

*Updated quarterly*

**CERCLIS: EPA** Environmental Protection Agency

*Updated quarterly*

**NFRAP: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA COR ACT: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA TSD: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA GEN: EPA** Environmental Protection Agency.

*Updated quarterly*

**RCRA NLR: EPA** Environmental Protection Agency

*Updated quarterly*

**Federal IC / EC: EPA** Environmental Protection Agency

*Updated quarterly*

**ERNS: EPA/NRC** Environmental Protection Agency

*Updated semi-annually*

**Tribal Lands: DOI/BIA** United States Department of the Interior

*Updated annually*

**State/Tribal IC: HI DOH** Office of Hazard Evaluation and Emergency Response, Hawaii State Department

of Health

*Updated biannually*

**State/Tribal Sites:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal VCP:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal Brownfields:** *HI DOH* Office of Hazard Evaluation and Emergency Response, Hawaii State Department of Health

*Updated biannually*

**State/Tribal LUST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**State/Tribal UST/AST:** *HI DOH* The Hawaii Department of Health, Solid and Hazardous Waste Branch

*Updated biannually*

**State ACEC:** *USFWS* United States Fish and Wildlife Services

*Updated semi-annually*

**Wetlands:** *US FWS* U.S. Fish and Wildlife Service

*Updated when available*

**Floodplains:** *FEMA* Federal Emergency Management Agency

*Updated when available*

**Receptors:** *US DOC* US Department of Commerce, Census Bureau

*Updated periodically*

**Historic Landmarks:** *NPS* National Park Service

*Updated annually*

**Federal Land Use:** *USGS/EPA/FWS* U.S. Geological Survey  
Environmental Protection Agency

*Updated annually*

**Federal Wells:** *USGS* United States Geographical Survey.

*Updated annually*

**USGS Soils:** *USGS/NRCS* United States Geographical Survey

*Updated annually*

**NPDES:** *EPA* Environmental Protection Agency

*Updated quarterly*

**FINDS:** *EPA* Environmental Protection Agency

*Updated annually*

**TRIS:** *EPA* Environmental Protection Agency.

*Updated quarterly*

**HMIRS:** *US DOT* US Department of Transportation

*Updated quarterly*

**NCDB:** *EPA* Environmental Protection Agency

*Updated quarterly*

**PADS:** *EPA* Environmental Protection Agency

*Updated quarterly*

**RADON:** *NTIS* Environmental Protection Agency, National Technical Information Services

*Updated periodically*

**Nuclear Permits:** *EPA/NRC* Nuclear Regulatory Commission

*Updated periodically*

***Environmental FirstSearch***  
***Street Name Report for Streets within .25 Mile(s) of Target Property***

**Target Property:** FORD ISLAND NAVAL FAMILY HOUSING      **JOB:** 904283  
HONOLULU HI 96844

Street Name	Dist/Dir	Street Name	Dist/Dir
1st St	0.00 --		
2nd St	0.03 SE		
3rd St	0.07 SE		
4th St	0.14 SE		
5th St	0.22 SE		
Avenue G	0.03 NE		
Avenue H	0.12 SE		
Avenue J	0.00 --		
Central Ave	0.20 SE		
Ford Island Way	0.00 --		
Hospital Way	0.00 --		
NOCOVERAGE	0.00 --		



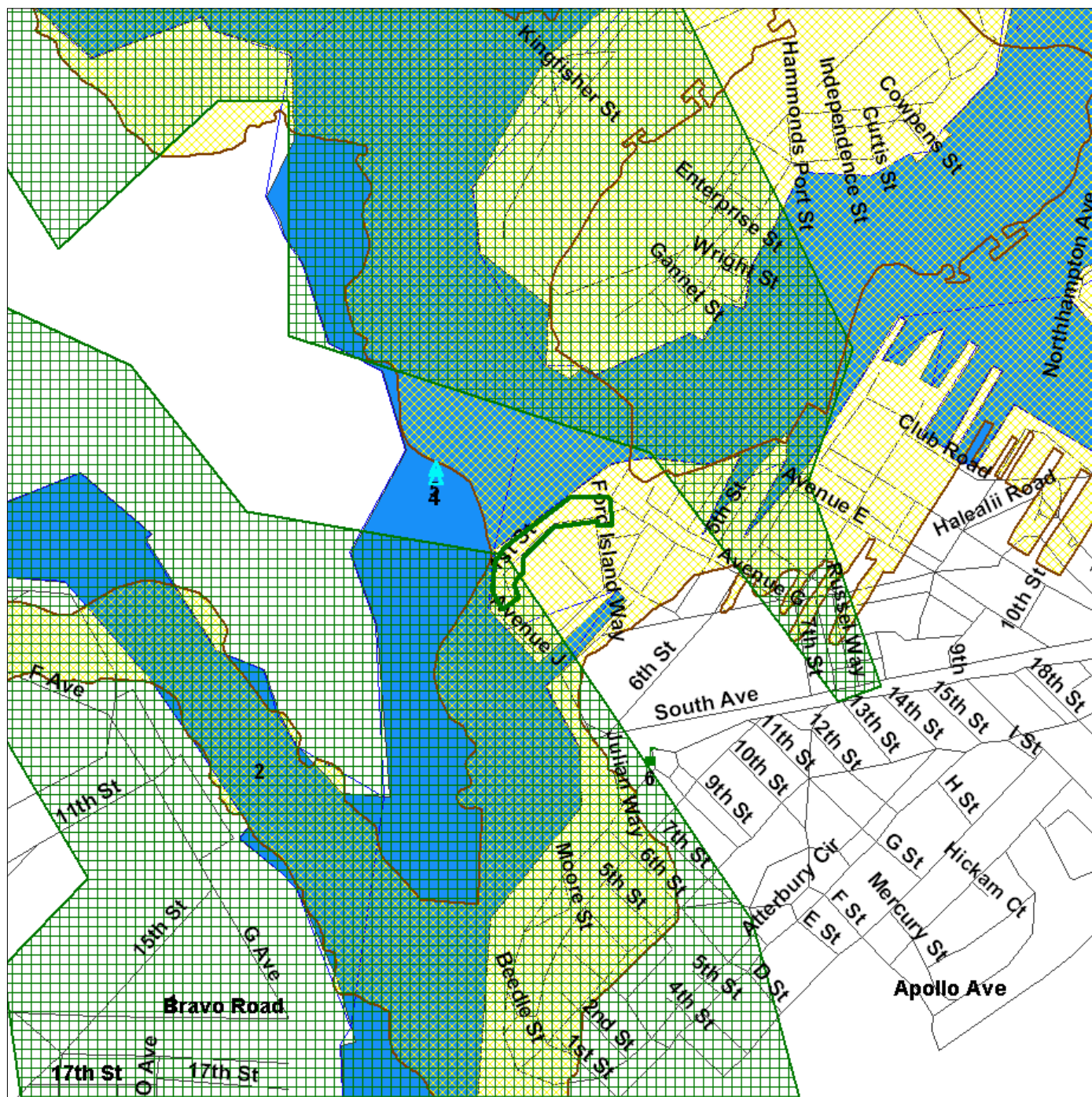
# Environmental FirstSearch

1 Mile Radius from Area

Single Map:



## FORD ISLAND NAVAL FAMILY HOUSING, HONOLULU HI 96844

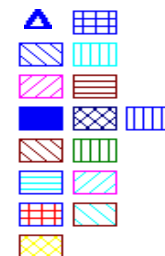


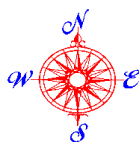
Source: U.S. Census TIGER Files

Area Polygon .....  
 Identified Site, Multiple Sites, Receptor .....  
 NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
 Triballand.....  
 National Historic Sites and Landmark Sites .....  
 Soil Sites .....  
 Railroads .....



Public Water Supply, Zone II, Zone A, Interim Wellhead Protection Areas  
 Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA)  
 Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...  
 Water Bodies, Sole Source Aquifer .....  
 Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
 Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
 Floodplains: 100 Year, 500 Year .....  
 Wetlands .....



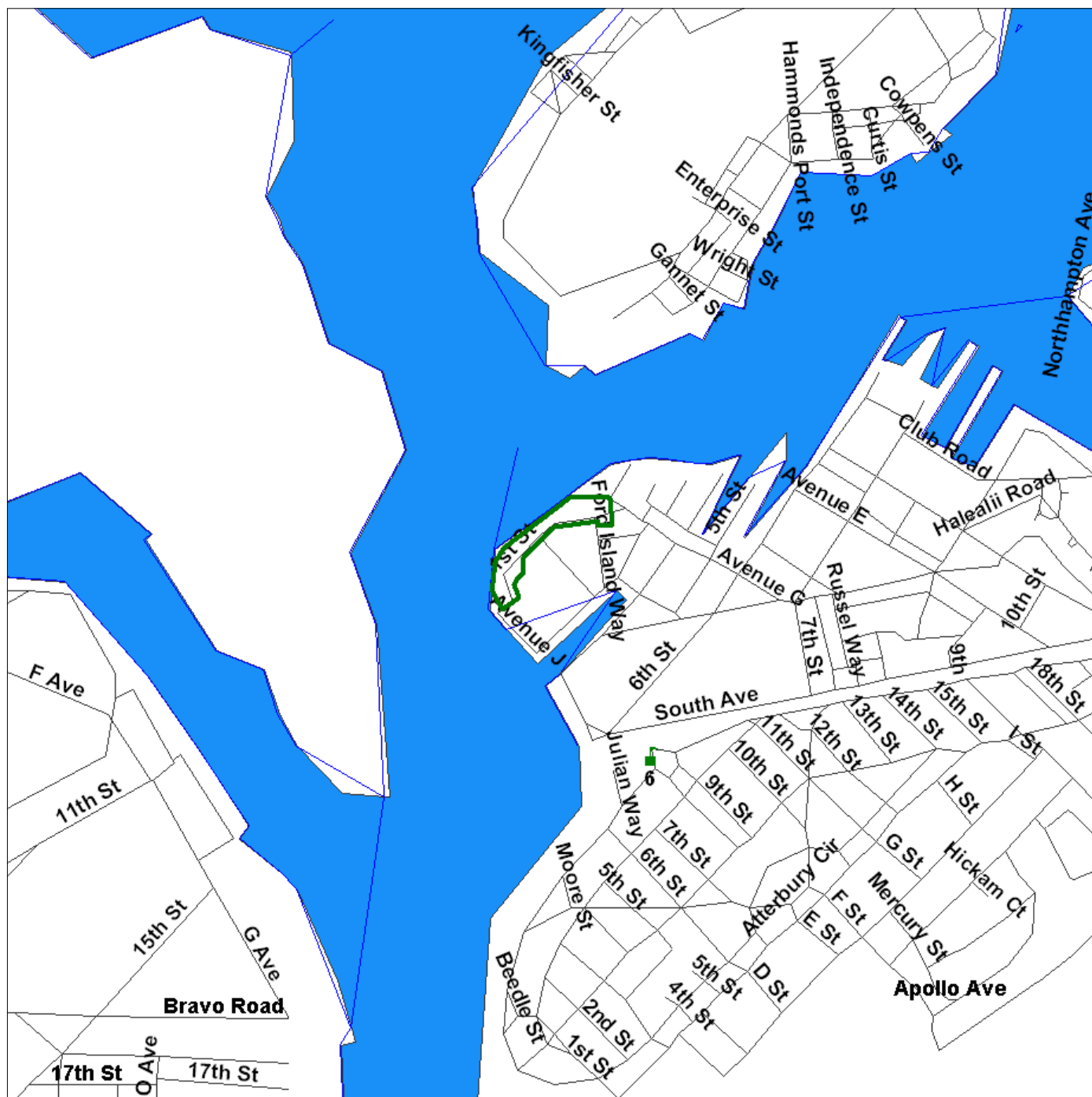


# Environmental FirstSearch

1 Mile Radius from Area  
ASTM-05 PARSONS: NPL, RCRACOR, STATE



## FORD ISLAND NAVAL FAMILY HOUSING, HONOLULU HI 96844

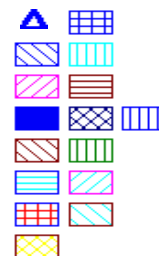


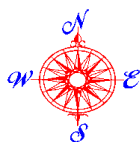
Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Soil Sites .....  
Railroads .....



Public Water Supply, Zone II, Zone A, Interim Wellhead Protection Areas  
Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA)  
Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...  
Water Bodies, Sole Source Aquifer .....  
Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....



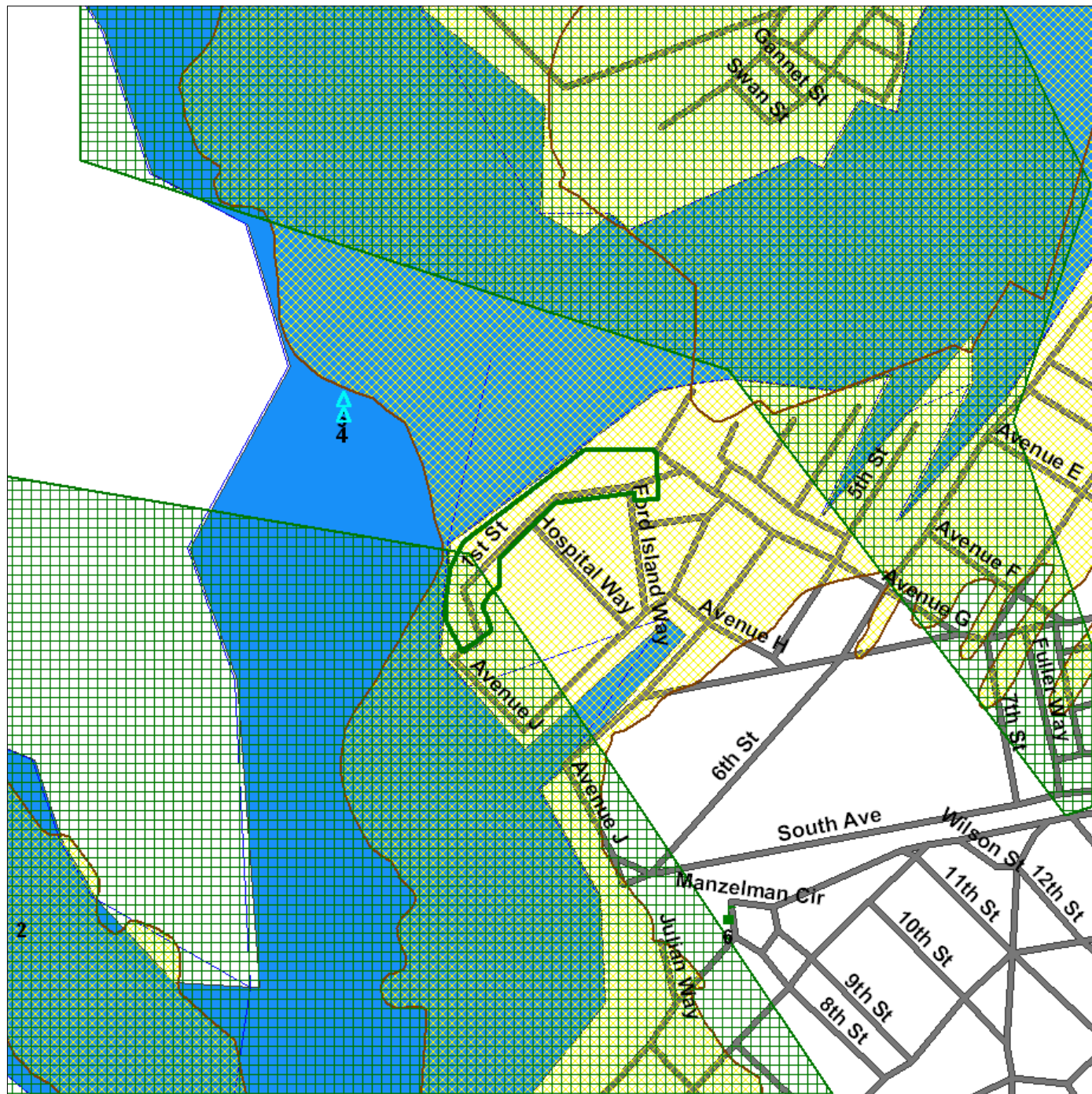


# Environmental FirstSearch

.5 Mile Radius from Area  
ASTM-05 PARSONS: Multiple Databases



## FORD ISLAND NAVAL FAMILY HOUSING, HONOLULU HI 96844

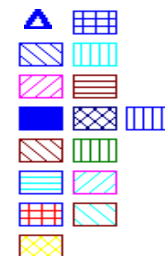


Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Soil Sites .....  
Railroads .....






























Public Water Supply, Zone II, Zone A, Interim Wellhead Protection Areas  
Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA)  
Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...  
Water Bodies, Sole Source Aquifer .....  
Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....



**FORD ISLAND NAVAL FAMILY HOUSING, HONOLULU HI 96844**



*Source: U.S. Census TIGER Files*

Area Polygon .....			Public Water Supply, Zone II, Zone A, Interim Wellhead Protection Areas				
Identified Site, Multiple Sites, Receptor .....				Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA)			
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste .....				Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...			
Triballand.....				Water Bodies, Sole Source Aquifer .....			
National Historic Sites and Landmark Sites .....				Area of Critical Environmental Concern (ACEC), Protected Open Spaces			
Soil Sites .....				Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....			
Railroads .....				Floodplains: 100 Year, 500 Year .....			
				Wetlands .....			



# Environmental FirstSearch

.12 Mile Radius from Area  
ASTM-05 PARSONS: ERNS, RCRANLR



## FORD ISLAND NAVAL FAMILY HOUSING, HONOLULU HI 96844



Source: U.S. Census TIGER Files

Area Polygon .....  
Identified Site, Multiple Sites, Receptor .....  
NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste  
Triballand.....  
National Historic Sites and Landmark Sites .....  
Soil Sites .....  
Railroads .....



Public Water Supply, Zone II, Zone A, Interim Wellhead Protection Areas  
Potentially Productive Aquifers: High Yield (GAA), Medium Yield (GA)  
Non-Potential Drinking Source: High Yield (GB), Medium Yield (GC)...  
Water Bodies, Sole Source Aquifer .....  
Area of Critical Environmental Concern (ACEC), Protected Open Spaces  
Estimated Habitats of Rare Wetlands Wildlife, Vernal Pool .....  
Floodplains: 100 Year, 500 Year .....  
Wetlands .....

